

**BEFORE THE BOARD OF COUNTY COMMISSIONERS  
OF LEWIS COUNTY, WASHINGTON**

**AN ORDINANCE OF LEWIS COUNTY, WASHINGTON )  
AMENDING LEWIS COUNTY CODE CHAPTER 15.35 FLOOD ) ORDINANCE NO. 1245  
DAMAGE PREVENTION )**

**WHEREAS**, Lewis County is authorized to adopt development regulations under authority of Chapter 36.70A RCW; and

**WHEREAS**, the Board of County Commissioners received recommendations from the Planning Commission concerning amendments to Lewis County Code Chapter 15.35 Flood Damage Prevention; and

**WHEREAS**, the Lewis County Planning Commission and the Board of County Commissioners have held public meetings and hearings as required under state law and consistent with the public participation program of Lewis County, to take public testimony and consider the matter; and

**WHEREAS**, the proposed amendments of the development regulations do not amend the Lewis County Comprehensive Plan; and

**WHEREAS**, the Board of County Commissioners has reviewed the recommendations of the Planning Commission and County staff, considered testimony from the public, and finds that the proposed amendments to these development regulations are consistent with the Lewis County Comprehensive Plan and are in the best interest of the public;

**NOW THEREFORE BE IT ORDAINED** by the Lewis County Board of County Commissioners that:

1. Lewis County adopts and incorporates the amendments to Lewis County Code Chapter 15.35 as recommended by the Planning Commission as follows:

**Chapter 15.35  
FLOOD DAMAGE PREVENTION**

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#### **15.35.010 Title.**

This chapter shall be known and shall be cited as the Lewis County “flood damage prevention chapter.” [Ord. 1157, 1998; Ord. 1145 § 1, 1995]

#### **15.35.020 Purpose.**

It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- (1) To protect human life and health;
- (2) To minimize expenditure of public money and costly flood control projects; to minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

- (3) To minimize prolonged business interruptions;
- (4) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- (5) To help stabilize the tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future blight areas;
- (6) To insure that potential buyers are notified that property is in an area of special flood hazard; and
- (7) To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. [Ord. 1157, 1998; Ord. 1145 § 2, 1995]

#### **15.35.025 Severability.**

If any section, subsection, sentence, clause, phrase, portion or part of this code is for any reason held to be invalid or unconstitutional by any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this code.

#### **15.35.030 Methods of reducing flood losses.**

In order to accomplish its purposes, this chapter includes methods and provisions for:

- (1) Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- (2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;
- (4) Controlling filling, grading, dredging, and other development which may increase flood damage; and
- (5) Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas. [Ord. 1157, 1998; Ord. 1145 § 3, 1995]

#### **15.35.040 Definitions.**

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application.

{1} "Appeal" means a request for a review of a "land use decision" under this chapter, as provided for in Chapter 2.25 LCC.

{2} "Area of shallow flooding" means a designated AO or AH zone on the flood insurance rate map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. AO is characterized by sheet flow and AH indicates areas of shallow flooding where depths are between one and three feet, but no flood hazard factors are determined.

{3} "Area of special flood hazard" means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letter A or V.

{4} "Base flood" means the flood having a one percent chance of being equaled or exceeded in any given year. Also referred to as the "100-year flood." Designation on maps always includes the letters A or V.

"Basement" means any area of the building having its floor sub-grade (below ground level) on all sides, partly or completely below grade.

{5} "Beneficial purpose" shall mean a 'beneficial use' of fill or materials deposition, involving purposeful development which includes, but is not limited to commercial and residential buildings, and road and utilities construction, in a manner consistent with protection of human health and public safety.

{6} "Best available information" means, ~~in the absence of official flood insurance rate map data, communities can use~~ data from other federal, state, or other sources; provided this data has either been generated using technically defensible methods or is based on reasonable historical analysis and experience. Flood data from existing flood events may be used where flood events are considered more accurate indicators of past base flood conditions. Any variance from adopted flood insurance rate maps must be of a more restrictive nature.

{7} "Critical facility" means a facility for which even a slight chance of flooding would be too great. Critical facilities include but are not limited to schools, hospitals, police, fire and emergency response installations, nursing homes, installations which produce, use, or store hazardous materials or hazardous waste.

{8} "Designated floodway" means the regulatory floodway which has been delineated on the flood insurance rate map (FIRM) or the flood boundary/floodway map (FBFM) of the Lewis County flood insurance study and is included in this chapter.

{9} "Development" means any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, ~~or~~ drilling operations or storage of equipment and materials located within

the area of special flood hazard. Practices that are normal or necessary for farming, and ranching, ~~and/or irrigation~~ are not considered to be "development."

~~(10)~~ "Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normal dry land areas from:

(a) The overflow of inland or tidal waters; and/or

(b) The unusual and rapid accumulation of runoff of surface waters from any source.

~~(11)~~ "Flood insurance rate map" means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

~~(12)~~ "Flood insurance study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the flood boundary floodway map, and the water surface elevation of the base flood.

~~(13)~~ "Flood protection elevation" means one foot above the base flood elevation.

~~(14)~~ "Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

"Freeboard" is an additional height requirement above the base flood elevation (BFE) that provides a margin of safety against extraordinary or unknown risks. This protects structures from waves, debris or unpredictable hazards that accompany the base flood.

~~(15)~~ "Lowest floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable no elevation design requirements of this chapter found at LCC 15.35.270.

~~(16)~~ "Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes the term "manufactured home" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. For insurance purposes the term "manufactured home" does not include park trailers, travel trailers, and other similar vehicles.

~~(17)~~ "Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

"Market value" as used for the purposes of determining substantial improvement, market value pertains only to the structure in question. It does not pertain to the land, landscaping or

detached accessory structures on the property. Any value resulting from the location of the property should be attributed to the value of the land, not the building. Acceptable estimates of market value can be obtained in the following ways:

- (a) An independent appraisal by a professional appraiser. The appraisal must exclude the value of the land and not use the "income capitalization approach" which bases value on the use of the property, not the structure.
- (b) Detailed estimates of the structure's actual cash value— the replacement cost for a building, minus a depreciation percentage based on age and condition. For most situations, the building's actual cash value should approximate its market value. Your community may prefer to use actual cash value as a substitute for market value, especially where there is not sufficient data or enough comparable sales.
- (e) Property values used for tax assessment purposes with an adjustment recommended by the tax appraiser to reflect current market conditions (adjusted assessed value).
- (f) The value of buildings taken from NFIP claims data (usually actual cash value).
- (g) Qualified estimates based on sound professional judgment made by the staff of the local building department or tax assessor's office.

~~(18)~~ "Necessary" as in the phrase 'not greater than is necessary' shall mean that which is reasonable to effect the intended purpose.

~~(19)~~ "New construction" means structures for which the "start of construction" commenced on or after the effective date of the ordinance codified in this chapter.

~~(20)~~ "Person" means an individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, or any agency of the state or local governmental unit however designated.

~~(21)~~ "Recreational Vehicle" shall mean a vehicle which is:

- (a) Built on a single chassis;
- (b) 400 square feet or less when measured at the largest horizontal projection;
- (c) Designed to be self-propelled or permanently towable; and
- (d) Designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use.

"Repetitive Loss" means a residential property that is covered under an NFIP flood insurance policy and:

- (a) That has at least four NFIP claim payments (including building and contents) over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or
- b) For which at least two separate claims payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building.

For both (a) and (b) above, at least two of the claims must have occurred within any ten-year period, and must be greater than 10 days apart.

{22} "Special flood hazard area" means an area subject to a base or 100-year flood; areas of special flood hazard are shown on a flood hazard boundary map or flood insurance rate map as zone A, AO, AI-30, AE, A99, AH, VO, V1-30, VE, or V.

~~{23}~~ "Start of construction" includes substantial improvement, and means the date the building permit was issued; provided, the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include excavation for a basement, footings, piers, or foundation or the erection of temporary forms; nor does it include the installation of streets and/or walkways; ~~nor does it include excavation for a basement, footings, piers, or foundation or the erection of temporary forms;~~ nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

~~{24}~~ "Structure" means a walled and roofed building including a gas or liquid storage tank that is principally above ground. Manufactured homes are considered structures.

"Substantial Damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged conditions would equal or exceed 50 percent of the market value of the structure before the damage occurred. This term includes structures which have incurred "repetitive loss".

~~{25}~~ "Substantial improvement" means any repair, reconstruction, or improvement of a structure the cost of which equals or exceeds 50 percent of the market value of the structure either:

- (a) Before the improvement or repair is started; or

- (b) If the structure has been substantially damaged and is being restored, before the damage occurred. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure; or
- (c) When the cumulative value of improvements or repairs reaches 50 percent over a 10-year period.

The term does not, however, include either:

- (a) Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which have been identified by a local building, code enforcement or health official and which are the minimum necessary to assure safe living conditions; or
- (b) Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

~~(26)~~ "Variance" means the grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.

~~(27)~~ "Water Dependent". A water-dependent structure for commerce or industry is one which cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operation.

~~(28)~~ "Wetlands" means lands defined under LCC 17.35.405 LCC, Wetland – Wetlands). [Ord. 1204 Exh. A § 5, 2008; Ord. 1145C, §1, 2000; Ord. 1145B, §1, 1999; Ord. 1145A §1, 1998; Ord. 1157, 1998; Ord. 1145 § 4, 1995]

#### **15.35.050 Lands to which this chapter applies.**

This chapter shall apply to all areas subject to a base flood and/or designated as an area of special flood hazard within the jurisdiction of Lewis County. [Ord. 1157, 1998; Ord. 1145 § 5(A), 1995]

#### **15.35.060 Basis for establishing the areas of special flood hazard.**

The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Lewis County" (FIS) dated November 1981, and as amended, with accompanying flood insurance rate maps, ~~is hereby adopted as adopted on December 15<sup>th</sup>, 1981~~ is by reference and declared to be a part of this chapter. The 1981 report, as adopted will serve as the official document, unless a new FIS study is adopted by Lewis County. The flood insurance study is on file at the Lewis County Public Service, Department of Community Services, Building Section, Chehalis, Washington and the Lewis County Auditor's Office, Courthouse, Chehalis, Washington. In the event the map is



insufficient, best available information should be used to determine the flood hazard zone. [Ord. 1157, 1998; Ord. 1145 § 5(B), 1995]

#### **15.35.070 Compliance.**

All development shall hereafter proceed in compliance with the terms of this chapter and other applicable regulations. [Ord. 1157, 1998; Ord. 1145 § 5(C), 1995]

#### **15.35.080 Abrogation and greater restrictions.**

This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions which may be enforced by private action among the affected parties. This chapter establishes the standards for public action. [Ord. 1157, 1998; Ord. 1145 § 5(D), 1995]

#### **15.35.090 Interpretation.**

In the interpretation and application of this chapter, all provisions shall be:

- (1) Considered as minimum requirements;
- (2) Liberally construed in favor of the governing body; and
- (3) Deemed neither to limit nor repeal any other powers granted under state statutes. [Ord. 1157, 1998; Ord. 1145 § 5(E), 1995]

#### **15.35.100 Criteria for land management and use.**

The standards and definitions contained in 44 CFR, Parts 59 and 60 for the National Flood Insurance Program, Chapter 86.16 RCW and Chapter 173-158 WAC, and Chapter 17.35 LCC, Critical Areas, are adopted as the minimum state standards by reference. [Ord. 1157, 1998; Ord. 1145 § 5(F), 1995]

#### **15.35.110 Warning and disclaimer of liability.**

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. Lewis County and any of its officers or employees are not responsible for the accuracy of materials submitted for review and does not guarantee that flood damage will not result from reliance on this chapter or any administrative decision lawfully made thereunder. [Ord. 1157, 1998; Ord. 1145 § 5(G), 1995]

#### **15.35.120 Administrator – Designated.**

The building official for the county or his designee shall be designated as administrator and shall be responsible for interpreting, developing and applying the provisions and requirements of this chapter. [Ord. 1157, 1998; Ord. 1145 § 6(A)(1), 1995]

#### **15.35.130 Administrator – Duties.**

Duties of the building official shall include, but are not limited to:

(1) Permit Review.

- (a) Review all development permits to determine that the permit requirements of this chapter have been satisfied.
- (b) Review all development permits to determine that all necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required.
- (c) Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of LCC 15.35.310(1) are met.
- (d) Provide a copy of the permit application and site plan to the planning department for review and comment.

(2) Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with LCC 15.35.060, the building official shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from federal, state, or other source, in order to administer LCC 15.35.270, 15.35.280 and 15.35.310.

(3) Information to be Obtained and Maintained.

- (a) Where base flood elevation is provided through the flood insurance study or required as in subsection (2) of this section, the developer shall provide to the building official the actual elevation to which the structure was flood-proofed, certified by a licensed land surveyor, (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement. The building official shall record this elevation.
- (b) For all new or substantially improved floodproofed structures:
  - (i) The developer shall provide to the building official the actual elevation, certified by a licensed land surveyor. The building official shall record this elevation.

(ii) The building official shall maintain the floodproofing certifications required in LCC 15.35.140(3).

(c) The building official shall maintain for public inspection all records pertaining to the provisions of this chapter.

(4) Alteration of Watercourses.

(a) Notify adjacent communities and the Department of Ecology prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.

(b) Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

(5) Interpretation of FIRM Boundaries. Make interpretations, where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in LCC 15.35.160. [Ord. 1145C § 2, 2000; Ord. 1157, 1998; Ord. 1145 § 6(A)(2), 1995]

#### **15.35.140 Development permits.**

A development permit entitled flood hazard zone permit shall be obtained before construction or development begins within any area of special flood hazard established in LCC 15.35.060. The permit shall be for all structures including manufactured homes, as set forth in LCC 15.35.040 and for all other development including fill and other activities, also as set forth in LCC 15.35.040. Application for a development permit shall be made on forms furnished by the building official and shall include (but not be limited to) site plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically the following information is required:

(1) Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;

(2) Elevation in relation to mean sea level to which any structure has been floodproofed;

(3) Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in LCC 15.35.270;

(4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development; and

(5) The applicant shall indicate the exact location of the proposed structures or development upon a copy of the flood hazard map and shall certify in writing that the location shown is correct. Applicant may also make such certification upon an accurate site plan showing location of readily identifiable physical features.

(6) Every permit issued by the administrator in accordance with this chapter shall expire by limitation and become null and void if the work authorized by such permit is not commenced within 180 days from the effective date of such permit, or if the work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days. Before such work can be recommenced, a new permit shall be first obtained using the most current maps and flood insurance study.~~to do so, and the~~ The fee ~~therefor~~ shall be one half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans or specifications, and provided further that such suspension or abandonment has not exceeded one year. In order to renew action on a permit after an expiration exceeding one year, the permittee shall pay a new, full permit fee and submit to full permit review. Any permittee holding an unexpired permit may apply for an extension of time within which work may be commenced under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. For good cause shown, a permittee with an active permit may be granted up to two successive six-month extensions for time of action required under this section. For each extension, the permit must be reviewed for compliance with the most current maps and flood insurance study. In no event, however, shall the work authorized by such permit extend beyond two (2) years of the effective date of the permit under this section. For purposes of this section, the effective date of the permit shall be the date of the last action required on the permit and all other government permits and approvals that authorize the development to proceed, including all administrative and legal actions on any such permit or approval. It is the responsibility of the applicant to inform the Administrator of the pendency of other permit applications filed with agencies other than the County and of any related administrative and legal actions on any permit or approval. If no notice of the pendency of other permits or approvals is given to the Administrator by the applicant prior to the expiration date established by the permit or the provisions of this section, the expiration shall be based on the original permit date. [Ord. 1145A §2, 1998; Ord. 1157, 1998; Ord. 1145 § 6(A)(3), 1995]

#### **15.35.145 Development Fees.**

A fee for a development permit hereunder shall be as set forth in LCC 18.05.055. [Ord. 1145B §2, 1999]

#### **15.35.150 Shoreline management permits.**

A shoreline management substantial development permit shall accompany a Joint Aquatics Application Permit and a Flood Plain Development permit. A shoreline management substantial development permit issued pursuant to Chapter 90.58 RCW (Shoreline Management Act of 1971) and the Lewis County shoreline management master program and Chapter 17.25 LCC may serve as the flood hazard zone permit for those developments and structures that are

within both a flood hazard zone and an area under jurisdiction of the Shoreline Management Act. [Ord. 1145C § 3, 2000; Ord. 1157, 1998; Ord. 1145 § 6(A)(4), 1995]

#### **15.35.160 Appeals.**

Hearing Examiner. Any decision of the administrator in the interpretation and application of this chapter may be appealed pursuant to Chapter 2.25 LCC. [Ord. 1157, 1998; Ord. 1145 § 6(B), 1995]

#### **15.35.170 Variances.**

- (1) Administration. The administrator shall hear and decide requests for variances.
- (2) Application. Application for a variance request shall be submitted in conjunction with any permit request, and any notice required for such permitting shall include notice of the request for variance.
- (3) Standards of Review. In deciding upon a request for variance, the administrator shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter, and the following:
  - (a) The danger that materials may be swept onto other lands to the injury of others;
  - (b) The danger to life and property due to flooding or erosion damage;
  - (c) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
  - (d) The importance of the services provided by the proposed facility to the community;
  - (e) The necessity to the facility of a waterfront location, where applicable;
  - (f) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
  - (g) The compatibility of the proposed use with existing and anticipated development;
  - (h) The relationship of the proposed use to the comprehensive plan, if any, and floodplain management program for that area;
  - (i) The safety of access to the property in times of flood for ordinary and emergency vehicles;
  - (j) The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site;

- (k) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges;
- (l) A showing of good and sufficient cause;
- (m) A determination that failure to grant the variance would result in exceptional hardship to the applicant;
- (n) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public as identified in subsections (a) through (k) above, or conflict with existing local laws or ordinances.

(4) General Requirements. The only condition under which a variance from the elevation standard may be used is for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level; provided subsections (3)(a) through (n) of this section have been fully considered. As the lot size increases the technical justification required for issuing the variance increases.

(5) General Restrictions. The issuance of variances shall be further limited by the following general issuance restrictions:

- (a) Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places without regard to the procedures set forth in this section, provided that the issuance of the variances will not preclude the structures listing as a historical structure.
- (b) Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.
- (c) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- (d) Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.
- (e) Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of floodproofing than watertight or dry-floodproofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria except subsection (4) of this section, and otherwise complies with LCC 15.35.200 and 15.35.210.

(6) Notice. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will result in an increased premium rate be commensurate with the increased risk resulting from the reduced lowest floor elevation. [Ord. 1157, 1998; Ord. 1145 § 6(C), 1995]

#### **15.35.180 Penalties and enforcement.**

(1) It shall be unlawful for any person(s) to violate any provision of this chapter.

(2) A notice of violation and order for penalty may be issued by the administrator or designee pursuant to LCC 1.20.040; except, that the cumulative penalty may total up to \$1,000 per day for each violation assessed against the person(s) to whom the notice and order to correct the violation is directed.

(3) Any penalty jointly imposed by the administrator and by Lewis County pursuant to WAC 173-158-090 may be subject to appeal directly to the Pollution Control Hearings Board of the state of Washington, by and through the administrative procedures governing the board. [Ord. 1157, 1998; Ord. 1145 § 6(D), 1995]

#### **15.35.190 Flood hazard reduction – General standards.**

In all areas of special flood hazards the standards of LCC 15.35.200 through 15.35.240 are required. In addition, in all areas of special flood hazards:

~~(1)~~ Any fill or materials to be deposited within special flood hazard areas must have a beneficial purpose and the amount thereof not greater than is necessary to achieve that purpose, as demonstrated by a complete application plan submitted by the legal owner(s) showing the uses to which the filled land will be put and the final dimensions of the proposed fill or other materials. Any placement of fill or encroachments shall minimize the net increase in flood levels to less than or equal to the federal standard of one-foot increase in flood levels from the cumulative effect of the proposed development when combined with all other existing and anticipated development during the occurrence of the base flood discharge. The county may adopt a program to limit the cumulative impacts of fill to meet the FEMA standard of an overall increase not to exceed one foot in any watershed or sub-basin or an applicant may provide a study that demonstrates compliance with the one-foot cumulative rise standard; provided, that up to 500 cubic yards of permitted fill may be placed outside of the mapped floodway on an existing parcel under contiguous ownership without complying with the above standard. This exemption does not apply when there is no mapped floodway in the special flood hazard area. However, the requirement of LCC 15.35.310 shall continue to apply for any encroachment into a FEMA identified floodway. All or substantial alteration of existing facilities, including roadways, except approved flood control structures, shall incorporate provisions to allow the free movement of floodwaters and may require retrofitting to remove barriers to flood movement.

~~(2) Fill or materials must be obtained from the same site, to the extent practicable. Where such fill or materials cannot be so obtained from the same site, fill or materials must be obtained, to the extent possible, both within the immediate vicinity and within the boundaries of the special flood hazard area. This subsection, both as a portion of the amending provisions of Section (3) of Ordinance No. 1145A and as LCC 15.35.190(2), shall expire on November 1, 2002. [Ord. 1204 Exh. A § 5, 2008; Ord. 1145A § 3, 1998; Ord. 1157, 1998; Ord. 1145 § 7(A), 1995]~~

#### **15.35.200 Anchoring.**

(1) All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

(2) All manufactured homes must likewise be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (Reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques). [Ord. 1157, 1998; Ord. 1145 § 7(A)(1), 1995]

#### **15.35.210 Construction materials and methods.**

(1) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

(2) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

(3) Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated one foot above base flood ~~or located~~ so as to prevent water from entering or accumulating within the components during conditions of flooding. [Ord. 1157, 1998; Ord. 1145 § 7(A)(2), 1995]

#### **15.35.220 Utilities.**

(1) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;

(2) New and replacement sanitary sewer systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters; and

(3) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding. [Ord. 1157, 1998; Ord. 1145 § 7(A)(3), 1995]



#### **15.35.230 Subdivision proposals.**

(1) All subdivision proposals shall be consistent with the need to minimize flood damage. Subdivisions within special flood hazard areas shall be clustered on the highest portion of the property to avoid flood hazards. Land that is located partially within a special flood hazard area may be divided; provided, that each resulting lot has sufficient buildable area and access to the lot is provided outside of the special flood hazard area. All plats and short plats will clearly show the boundary of the flood hazard area including any floodway together with a restriction on development within the hazard area;

(2) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water system source treatment and storage located outside the special flood hazard area, except where there is no feasible alternative. If allowed, such facilities shall be constructed to minimize flood damage;

(3) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and

(4) Where base flood elevation data has not been provided, or is not available from another authoritative source, the data shall be generated by the applicant as a condition of permitting. [Ord. 1204 Exh. A § 5, 2008; Ord. 1157, 1998; Ord. 1145 § 7(A)(4), 1995]

#### **15.35.240 Review of building permits.**

Where elevation data is not available either through the flood insurance study or from another authoritative source (LCC 15.35.130 (2)), applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates. [Ord. 1157, 1998; Ord. 1145 § 7(A)(5), 1995]

#### **15.35.250 Flood hazard reduction – Specific standards.**

In all areas of special flood hazards where base flood elevation data has been provided as set forth in LCC 15.35.060 or 15.35.130(2), the provisions of LCC 15.35.260 through 15.35.300 are required. [Ord. 1157, 1998; Ord. 1145 § 7(B), 1995]

#### **15.35.260 Flood protection elevation.**

In order to account for the impacts of future development on flood depths, and in order to ensure the least expensive insurance rates for floodplain occupants, all development within special flood hazard areas which requires elevation or floodproofing shall be elevated or floodproofed to or above the flood protection elevation (base flood elevation plus one foot of freeboard). [Ord. 1157, 1998; Ord. 1145 § 7(B)(1), 1995]

#### **15.35.270 Residential construction.**

- (1) New construction on existing parcels, additions, and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to the flood protection elevation.
- (2) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:
  - (a) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
  - (b) The bottom of all openings shall be no higher than one foot above grade.
  - (c) Openings may be equipped with screens, louvers, or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters. [Ord. 1204 Exh. A § 5, 2008; Ord. 1157, 1998; Ord. 1145 § 7(B)(2), 1995]

#### **15.35.280 Nonresidential construction.**

New construction, additions, and substantial improvement of any commercial, industrial, or other nonresidential structure requiring a building permit, shall either have the lowest floor, including basement, elevated to the flood protection elevation, or, together with attendant utility and sanitary facilities, shall:

- (1) Be floodproofed so that below the flood protection elevation the structure is watertight with walls substantially impermeable to the passage of water;
- (2) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
- (3) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in LCC 15.35.130(3)(b);
- (4) Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in LCC 15.35.260;
- (5) Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g., a building

constructed to the base flood level will be rated as one foot below that level). [Ord. 1157, 1998; Ord. 1145 § 7(B)(3), 1995]

#### **15.35.290 Manufactured homes.**

All manufactured homes to be placed or substantially improved within zones A1-30, AH, and AE shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at the flood protection elevation and be securely anchored to an adequately anchored foundation system in accordance with the provisions of LCC 15.35.200(2). [Ord. 1157, 1998; Ord. 1145 § 7(B)(4), 1995]

#### **15.35.295 Recreational vehicles.**

(1) All recreational vehicles to be placed within zones A1-30, AH and AE shall:

- (a) Be on the site for fewer than 180 consecutive days; or
- (b) Be fully licensed and ready for highway use, on its wheels or jacking system, be attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or
- (c) Meet the requirements of LCC 15.35.290, and the elevation and anchoring requirements for manufactured homes. [Ord. 1145B §3, 1999]

#### **15.35.300 Critical facilities.**

Critical facilities should be afforded additional flood protection due to their nature. Construction of new critical facilities shall be located outside the limits of the 100-year floodplain as identified on the community's FIRM, or as identified by Lewis County as being an area of high flood risk whether or not the location is identified on the FIRM, unless no alternative location is feasible. Substantial modification of existing critical facilities shall include an analysis of whether relocation is feasible. Construction of new critical facilities permitted within the 100-year frequency floodplain shall have the lowest floor elevated to three or more feet above the level of the 100-year frequency flood. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the 100-year frequency flood shall be provided to all critical facilities to the extent possible. [Ord. 1204 Exh. A § 5, 2008; Ord. 1157, 1998; Ord. 1145 § 7(B)(5), 1995]

#### **15.35.310 Floodways.**

Areas designated as floodways are located within areas of special flood hazard established in LCC 15.35.060. Because the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

(1) Landfill, potable water supply wells, substantial improvements, and new construction are prohibited. Other development may be allowed only if certification by a registered professional, Washington State engineer or architect is provided (through hydrologic and hydraulic analyses performed in accordance with standard engineering practice) demonstrating that the encroachments will not result in any increase in flood levels during the occurrence of the base flood discharge. Compensatory storage for floodwaters may be required.

(2) Special flood hazard areas with designated floodways. In addition to those NFIP requirements for designated floodways, communities with designated floodways shall restrict land uses within such areas to include the prohibition of construction or reconstruction of residential and nonresidential structures, except for:

(a) Repairs, reconstruction, or improvements to a structure which do not increase the ground floor area; and

(b) Repairs, reconstruction, or improvements which are not substantial improvements as defined in LCC 15.35.040(25).

(3) Special flood hazard areas without designated floodways. In areas with base flood elevations (for which a regulatory floodway has not been designated) no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1 – 30 and AE on the community's FIRM that will increase the water surface elevation of the base flood during the occurrence of the base flood discharge unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community. Building and development ~~near streams~~ without a designated floodway shall comply with the requirements of 44 CFR 60.3(b)(3) and (4), and (c)(10) of the National Flood Insurance Program regulations.

#### 40 CFR 60.3

*(b)(3) Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or five acres, whichever is the lesser, include within such proposals base flood elevation data; and*

*(b)(4) Obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, including data developed pursuant to subsection ((b)(3) of this section, as criteria for requiring that new construction, substantial improvements, or other development in Zone A on the community's FHBM or FIRM meet the standards in paragraphs (c)(2), (c)(3), (c)(5), (c)(6), (c)(12), (c)(14), (d)(2) and (d)(3) of this section;*

*(c)(10) Require until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fill) shall be permitted within*

*Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood.*

[Ord. 1204 Exh. A § 5, 2008; Ord. 1145A §4, 1998; Ord. 1157, 1998; Ord. 1145 § 7(C), 1995]

#### **15.35.320 Shallow flooding areas (AO zones).**

Shallow flooding areas appear on FIRMs as AO zones with depth designations. The base flood depths in these zones range from one to three feet where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. In these areas, the following provisions apply:

(1) New construction and substantial improvements of residential structures within AO zones shall not result in any increase in flood levels during the occurrence of the base flood discharge. Compensatory storage for floodwaters may be required. New construction and substantial improvements of residential structures must be constructed with the lowest floor (including basement) elevated above the highest adjacent grade of the structure, one foot or more above the depth number specified on the FIRM (at least two feet if no depth number is specified).

(2) New construction and substantial improvements of nonresidential structures within AO zones shall either:

(a) Have the lowest floor (including basement) elevated above the highest adjacent grade of the structure, one foot or more above the depth number specified on the FIRM (at least two feet if no depth number is specified); or

(b) Together with attendant utility and sanitary facilities, be completely floodproofed to that level specified in subsection (2)(a) of this section so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect as in LCC 15.35.280(3).

(3) Require adequate drainage paths around structures on slopes to slide floodwaters around and away from proposed structures.

(4) All recreational vehicles to be placed within AO zones shall:

(a) Be on the site for fewer than 180 consecutive days; or

(b) Be fully licensed and ready for highway use, on their wheels or jacking system, be attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or

(c) Meet the requirements of subsections (1), (2) and (3) of this section, and the anchoring requirements for manufactured homes. [Ord. 1204 Exh. A § 5, 2008; Ord. 1145C §§4 & 5, 2000; Ord. 1157, 1998; Ord. 1145 § 7(D), 1995]

2. This Ordinance amends only the referenced provisions of Chapter 15.35 Lewis County Code. All other provisions of the Lewis County Code shall remain in full force and effect.

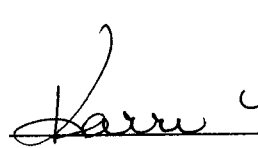
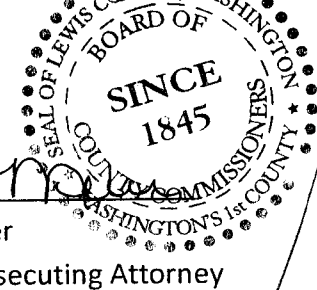
3. If any portion of the actions taken herein is found to be invalid by a Board or Court of competent jurisdiction, the remainder of the actions shall be deemed valid and shall continue in full force and effect. Further, if such invalidated portion repeals an existing rule or regulation, the replaced rule(s) or regulation(s) shall be reinstated until modified or replaced by the County Commissioners.

4. The provisions of this Ordinance No. 1245 are in the public interest and this Ordinance shall take effect immediately upon adoption by the Board.

PASSED IN REGULAR SESSION THIS 9<sup>th</sup> day of September 2013, after a public hearing was held September 9, 2013 pursuant to Notice published in the *East County Journal* on August 14, 2013 and the *Chronicle* on August 15, 2013

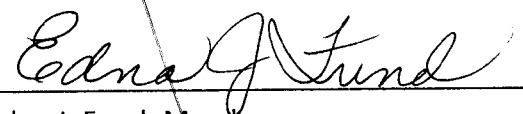
**APPROVED AS TO FORM:**

Jonathan Meyer, Prosecuting Attorney


By:    
Glenn Carter  
Deputy Prosecuting Attorney

**BOARD OF COUNTY COMMISSIONERS  
LEWIS COUNTY, WASHINGTON**

  
P.W. Schulte, Chairman

  
Edna J. Fund, Member

ATTEST:

  
F. Lee Grose, Member

  
Karr Muir, Clerk of the Board

(c) Meet the requirements of subsections (1), (2) and (3) of this section, and the anchoring requirements for manufactured homes. [Ord. 1204 Exh. A § 5, 2008; Ord. 1145C §§4 & 5, 2000; Ord. 1157, 1998; Ord. 1145 § 7(D), 1995]

2. This Ordinance amends only the referenced provisions of Chapter 15.35 Lewis County Code. All other provisions of the Lewis County Code shall remain in full force and effect.

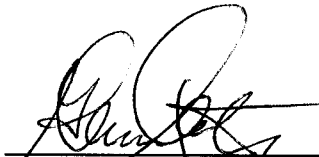
3. If any portion of the actions taken herein is found to be invalid by a Board or Court of competent jurisdiction, the remainder of the actions shall be deemed valid and shall continue in full force and effect. Further, if such invalidated portion repeals an existing rule or regulation, the replaced rule(s) or regulation(s) shall be reinstated until modified or replaced by the County Commissioners.

4. The provisions of this Ordinance No. 1245 are in the public interest and this Ordinance shall take effect immediately upon adoption by the Board.

PASSED IN REGULAR SESSION THIS 23rd day of September 2013, after public hearings was held September 9 and 23, 2013 pursuant to Notice published in the *East County Journal* on August 14, 2013 and the *Chronicle* on August 15, 2013

**APPROVED AS TO FORM:**

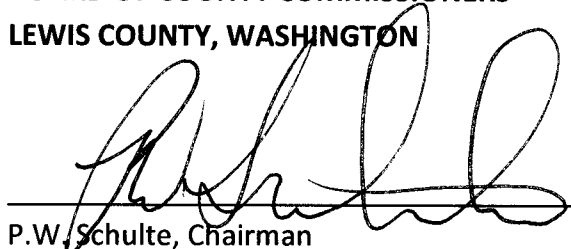
Jonathan Meyer, Prosecuting Atty.



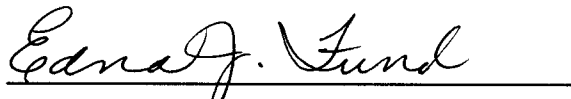
By: Glenn Carter

Deputy Prosecuting Attorney

**BOARD OF COUNTY COMMISSIONERS  
LEWIS COUNTY, WASHINGTON**

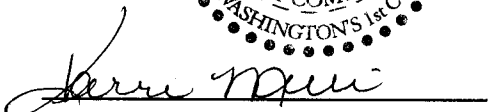


P.W. Schulte, Chairman



Edna J. Fund, Member

ATTEST:



Karr Muir, Clerk of the Board



F. Lee Grose, Member

## LETTER OF TRANSMITTAL

**To:** Lewis County Board of County Commissioners  
**From:** Lewis County Planning Commission  
**Date:** June 25, 2013  
**Subject:** Transmittal to the BOCC: Findings and Conclusions Regarding an amendment to Chapter 15.35 of the Lewis County Code

**Dear Commissioners:**

The Lewis County Planning Commission, during the months of March through June of 2013, held three workshops on March 26, May 28 and June 11 to review proposed staff recommendations for amending Chapter 15.35 of the Lewis County Code. The Planning Commission held public hearings on April 23 in Chehalis and on May 14 in Randle.

As Chairman of the Planning Commission, I am transmitting herewith the recommendations of the Planning Commission pertaining to the above topics.

The attached staff report (**Exhibit A**), Chapter 15.35 Amendment (**Exhibit B**), and the following findings and conclusions are presented to the Board of County Commissioners for consideration:

**General findings of fact:**

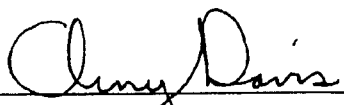
- 1) The amendment(s) were reviewed by the Lewis County Planning Commission to determine the validity and the overall impacts, taking into account the comprehensive plan, the zoning ordinance, planning policies, the GMA and development regulations, staff reports, and public testimony.
- 2) FEMA Region X conducted a Community Assistance Visit on August 3, 2011. As part of that review FEMA staff recommended specific improvements to the current adopted Ordinance 15.35. The modifications and proposed changes to Title 15.35 have been identified by ~~strike thru~~ for deletions and underlining for additions or changes to the original text. The proposed update will make the ordinance compliant with the Washington State Model Ordinance as well as the Federal CFR 59.1. The update may also help the county improve its CRS rating.
- 3) The amendments were presented at several public forums, and public testimony was taken consistent with the state regulations and LCC 17.12.



**Conclusions**

Based on the above findings and conclusions, amendment to the Lewis County Code appeared to warrant the proposed changes. The Planning Commission recommends adopting all proposed amendments.

Being duly authorized to transmit the recommendations on behalf of the Lewis County Planning Commission, I hereby respectfully submit these to the Lewis County Board of County Commissioners.

Submitted by  Date 6/25/13  
Arny Davis, Chairman  
Lewis County Planning Commission

Lewis County – Code Amendment  
LLC Title 15.35 Flood Damage Prevention  
Planning Commission Staff Report

**ISSUE:**

FEMA Region X conducted a Community Assistance Visit on August 3, 2011. As part of that review FEMA staff recommended specific improvements to the current adopted Ordinance 15.35. The modifications and proposed changes to Title 15.35 have been identified by strike thru for deletions and underlining for additions or changes to the original text. The proposed update will make the ordinance compliant with the Washington State Model Ordinance as well as the Federal CFR 59.1. The update may also help the county improve its CRS rating.

**DISCUSSION:**

The main point of discussion and the most controversial change is the proposed increase of Flood Protection Elevation or Freeboard. Current adopted regulations require **one foot of freeboard** above the base flood elevation (BFE). The proposed modification is to require all new commercial and single family residential (SFR) structures or substantial improvement to a SFR be elevated to **three feet of freeboard** above base flood elevation.

**REASONS FOR INCREASE IN FREEBOARD:**

There are design and construction practices that can eliminate or minimize damage to buildings when flood levels exceed the BFE. The most common approach is to add freeboard to the design (i.e., to elevate the building higher than required by the Flood Insurance Rate Map (FIRM)).

This proposed increase will provide an extra margin of safety to prevent flooding from unforeseen events like wave action from boats or vehicles. There are other benefits of designing for flood levels above the BFE:

- reduced building damage and maintenance;
- longer building life;
- reduced flood insurance premiums;
- reduced displacement and dislocation of building occupants after floods (and need for temporary shelter and assistance);
- reduced job loss; and
- increased retention of tax base.

The cost of adding freeboard at the time of home construction is modest, and reduced flood insurance premiums will recover the freeboard cost in a few years' time.

**IMPACTS TO LANDOWNERS AND BUILDERS:**

The impacts of this proposal are two-fold: there will be a visual impact due to the increased height of the foundation and a monetary increase to the cost of the foundation. Cost estimates based on current labor and materials have determined the additional expenditure to be approximately \$2,000.00 for a 2,000 square foot home. The monetary impact also affects the insurance cost. Below are examples of projected cost provided by FEMA.

**Flood Insurance Premium Examples**  
**Effective: January 1, 2013**  
**Post-FIRM AE Zone Single Family Residence**

| Single Family One Story, No Basement/Enclosure | \$250,000 Building Coverage Only | \$250,000 Building with \$100,000 in Contents |
|--|----------------------------------|---|
| Lowest Floor Elevation Difference              | Flood Insurance Premium          |   |
| 3 feet of freeboard                            | \$376                            | \$561   |
| 2 feet of freeboard                            | \$448                            | \$633   |
| 1 foot of freeboard                            | \$660                            | \$845   |

**EXPLANATION OF PROPOSED CHANGES:**

As part of the Lewis County Development Code, Chapter 15.35 applies only to new development and improvements such as remodels and repairs or any other work that requires a permit and compliance with flood regulations.

**EXISTING STRUCTURES ARE NOT REQUIRED TO BE ELEVATED UNLESS IMPROVEMENTS OR REPAIRS EXCEED 50% OF THE MARKET VALUE OF THE STRUCTURE**

Table of Proposed Changes (*lined out items: proposal withdrawn*)

| Code Section  | Why is change proposed?   |
|---|---|
| <b>15.35.025 Severability</b><br><i>Added new section</i> | Compliance with National Flood Insurance Program Community Assistance Visit (NFIP CAV)  |
| <b>15.35.040 Definitions</b><br><i>Removed numbering</i>  | Staff initiative, better for updating, numbering is unnecessary   |
| <b>Basement</b>   | Compliance with NFIP CAV  |
| <b>Best available information</b>                         | Compliance with NFIP CAV  |
| <b>Development</b>  | Compliance with NFIP CAV  |
| <b><del>Flood protection elevation</del></b>              | Staff proposal on 3 feet freeboard, benefit is potentially higher CRS rating leading to a higher discount on insurance rates; current 1 foot freeboard is higher than required resulting in a higher CRS rating |
| <b>Freeboard</b>  | Compliance with NFIP CAV  |
| <b>Market Value</b>                                       | Requested by planning commission  |
| <b>Repetitive loss</b>                                    | Compliance with NFIP CAV  |
| <b>Start of construction</b>                              | Compliance with NFIP CAV  |
| <b>Substantial improvement</b>                            | Compliance with NFIP CAV  |
| <b>Substantial damage</b>                                 | Compliance with NFIP CAV  |

LLC Title 15.35 Flood Damage Reduction Ordinance

| Code Section   | Why is change proposed?  |
|--|--|
| <b>15.35.060 Basis for establishing the areas of special flood hazard</b><br><i>Clarified language stating that the 1981 Flood Insurance Study is the "official" basis for determining whether property is in the floodplain</i> | Compliance with NFIP CAV   |
| <b>15.35.140 Development permits</b><br><i>(6) Clarified permit requirements</i>   | Compliance with NFIP CAV   |
| <b>15.35.150 Shoreline management permits</b><br><i>Clarified the procedure</i>  | Compliance with NFIP CAV   |
| <b>15.35.170 Variances</b><br><b>(5)(a) General restrictions</b><br><i>"historical structures"</i><br><b>(6) Notice</b><br><i>"result in an increase in premiums"</i>  | Compliance with NFIP CAV<br>Compliance with NFIP CAV   |
| <b>15.35.190 General standards</b><br><b>(1) placement of fill</b><br><b>(2) deleted</b>   | Compliance with NFIP CAV<br>Section expired in 2002  |
| <b>15.35.210 Construction materials and methods</b><br><b>(3) 1 foot above base flood</b>  | Staff proposal for consistency with the Lewis County building code which already requires elevating service facilities to one foot of freeboard. (LCC 15.05.020(1)(b) adopting IRC Section R322.1.6 shown below) |
| <b>15.35.260 Flood protection elevation</b><br><i>"...of freeboard..."</i><br><del><i>3 feet of freeboard</i></del>  | Compliance with NFIP CAV   |
| <del><b>15.35.270 Residential construction</b></del><br><del><b>(1) 3 feet of freeboard</b></del>  | Staff proposal (see reasons for increase above)  |
| <b>15.35.280 Nonresidential construction</b><br><i>"...requiring a building permit..."</i><br><del><i>3 feet of freeboard</i></del>  | Requested by Planning Commission – to clarify nonresidential structures that must meet this requirement. Requirement is consistent with LCC 15.05.020(1)(b) adopting IRC R105.2, shown below                     |
| <del><b>15.35.290 Manufactured homes</b></del><br><del><i>3 feet of freeboard</i></del>  | Staff proposal (see reasons for increase in freeboard above)   |
| <b>15.35.310 Floodways</b><br><b>(3) deleted "near streams"</b>  | Compliance with NFIP CAV   |

**CONSISTENCY WITH BUILDING CODE AND THE INTERNATIONAL RESIDENTIAL CODE (IRC)**

The International Residential Code (IRC) was adopted by reference in Ordinance 1220 in 2009 (LCC 15.05.020(1)(b)).

**IRC R105.2 Work exempt from permit.** Permits shall not be required for the following. Exemption from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

**Building:**

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 200 square feet (18.58 m<sup>2</sup>).
2. Fences not over 6 feet (1829 mm) high.
3. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
4. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
5. Sidewalks and driveways.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
8. Swings and other playground equipment.
9. Window awnings supported by an exterior wall which do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
10. Decks not exceeding 200 square feet in area that are not more than 30 inches above grade at any point, and are not attached to a dwelling and do not serve the exit door required by Section R311.4.

**R322.1.6 Protection of mechanical and electrical systems.** Electrical systems, *equipment* and components; heating, ventilating, air conditioning; plumbing *appliances* and plumbing fixtures; *duct systems*; and other service *equipment* shall be located at or above the elevation required in Section R322.2 (flood hazard areas including A Zones) or R322.3 (coastal high-hazard areas including V Zones). If replaced as part of a substantial improvement, electrical systems, *equipment* and components; heating, ventilating, air conditioning and plumbing *appliances* and plumbing fixtures; *duct systems*; and other service *equipment* shall meet the requirements of this section. Systems, fixtures, and *equipment* and components shall not be mounted on or penetrate through walls intended to break away under flood loads.

## LLC Title 15.35 Flood Damage Reduction Ordinance

**Exception:** Locating electrical systems, *equipment* and components; heating, ventilating, air conditioning; plumbing *appliances* and plumbing fixtures; *duct systems*; and other service *equipment* is permitted below the elevation required in Section R322.2 (flood hazard areas including A Zones) or R322.3 (coastal high-hazard areas including V Zones) provided that they are designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to the design flood elevation in accordance with ASCE 24. Electrical wiring systems are permitted to be located below the required elevation provided they conform to the provisions of the electrical part of this code for wet locations.

## QUESTIONS AND RESPONSES

April 23<sup>rd</sup> Planning Commission Public Hearing - Chehalis

**Question:** Master Builders Lewis County asked "will the proposal affect all of Lewis County?"

**Response:** No, the proposed change only would apply to unincorporated areas of the County. Incorporated jurisdictions must adopt their own standards under their governing authority.

**Question:** How long have the current regulations been in place?

**Response:** Lewis County entered the regular National Flood Insurance Program (NFIP) on December 15, 1981. Lewis County residents would not be eligible for any disaster funding, public or private, if the County was not a member of NFIP.

**Question:** What are the benefits of belonging to the National Flood Insurance Program Community Rating System (CRS) and what are the effects on the County and its residences now?

**Response:** Lewis County began participating in the CRS program in 1981 and currently carries a Class 7 rating which includes a 15% premium reduction. The CRS program is a voluntary incentive that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the following three goals of the CRS:

1. *Reduce flood damage to insurable property;*
2. *Strengthen and support the insurance aspects of the NFIP, and*
3. *Encourage a comprehensive approach to floodplain management.*

### How Flood Insurance Premium Discounts are Calculated

The CRS classes for local communities are based on 18 creditable activities, organized under four categories:

1. *Public Information,*
2. *Mapping and Regulations,*
3. *Flood Damage Reduction, and*
4. *Flood Preparedness.*

The table below shows the ten classifications and premium reductions given for communities in the NFIP CRS based how well they meet the criteria of the four categories.

| Class | Premium Reduction | Class | Premium Reduction |
|-------|-------------------|-------|-------------------|
| 1     | 45%               | 6     | 20%               |
| 2     | 40%               | 7     | 15%               |
| 3     | 35%               | 8     | 10%               |
| 4     | 30%               | 9     | 5%                |
| 5     | 25%               | 10    | 0%                |

## QUESTIONS AND RESPONSES

### May 14<sup>th</sup> Planning Commission Public Hearing - Randle

**Question:** If the County adopts the new freeboard standard is there a guarantee that Lewis County will get a better rating from FEMA?

**Response:** No. The County is currently going through an audit on the Community Rating System (CRS) and the hope is to obtain the best rating we can, but there are no guarantees that a reduction in our current rating will be the result.

**Question:** Who is requiring this increase in freeboard? Why?

**Response:** Staff proposed this increase as part of an ordinance update. We wanted to get people out of harm's way and reduce their risk from flood events. The rest of the update was generated by a Community Assistance Visit from FEMA Region X in October 2011; the review made specific recommendations for updates to the current ordinance to address some needed changes to stay compliant with the National Flood Insurance Program (NFIP) requirements.

**Question:** How can I find out if my property is in the floodplain?

**Response:** The Lewis County map website has the latest FEMA floodplain maps. The website can be accessed at <http://ims.lewiscountywa.gov/webmaps/fema/>. You may also call Lewis County Community Development if you'd like further assistance at 360-740-1146.

**Question:** Will banks provide a mortgage for an existing house that does not meet the three feet freeboard requirement?

**Response:** Any structure that meets the local adopted NFIP regulations is eligible for financing and insurance coverage.

**Question:** If my home is damaged by a tree falling on the home or is damaged by fire we would not be allowed to repair or rebuild it.

**Response:** The regulations mandate that any structure within the *floodway* that is substantially damaged by any means (51% or more) shall be condemned and may not be repaired. Structures located in a *floodplain* may be repaired if the structure is substantially damaged. Under the current regulations it would have to elevate to the one foot freeboard above the Base Flood Elevation (BFE) requirement. If the three feet freeboard standard is approved as a higher regulatory standard then the three feet freeboard requirement would apply.

**Question:** What does ICC mean? Are the funds guaranteed?

**Response:** ICC stands for Increased Cost of Compliance. The funding for ICC is provided by the Federal Government through FEMA under CFR 44. The funding is guaranteed and provides home owners with a standard flood insurance policy that have sustained a flood loss when the community official declares the structure to be substantially damaged. ICC will help pay up to



## LLC Title 15.35 Flood Damage Reduction Ordinance

a maximum of \$30,000 of the cost to assist in elevating, floodproofing, demolishing or relocating the structure.

**Question:** Will non-residential structures be required to elevate to the three feet freeboard standard?

**Response:** No. FEMA does not require accessory structures to be insured under the NFIP. Structures such as tool sheds, greenhouses and barns are not covered under the NFIP policies. Lending institutions may require insurance coverage if the accessory structure is part of the mortgage.

**Concern:** There is a concern about the cost to elevate to the three foot freeboard requirement.

**Response:** Staff met with the Master Builders President of the Lewis County Chapter, Mr. Eric Jensen. We requested that they check and provide an estimate for the additional 2 feet of foundation. The cost estimate for material and labor is estimated at \$2000 for an average 2,000 square foot home.

**Concern:** River Run Ranch moratorium and no build zone.

**Response:** The River Run Ranch falls within both *floodway* and *floodplain*. The lots within the *floodway* were never buildable and were approved for recreational use only. The development of any permanent structure is prohibited. The lots within the floodplain may be developed as long as they meet the minimum NFIP regulations.

**Question:** Will FEMA's rates for insurance coverage go up no matter what we do?

**Response:** Congress approved the Flood Insurance Reform Act of 2012 (Biggert-Watters Act). The program will mean rate increases for policyholders over time. The rates for most properties will accurately reflect the full risk and will increase 25% starting on October 1, 2013.

**Question:** Are we really looking at the big picture of what is causing the flooding?

**Response:** This proposal is about the update of the Flood Damage Prevention chapter of Lewis County Code (LCC) 15.35. FEMA would look at causes of flooding when conducting a new Flood Insurance Study if conditions warranted the research and mapping.

**Question:** Would the freeboard standard apply county wide?

**Response:** The three feet freeboard standard would be applied to unincorporated areas of Lewis County only. The incorporated cities adopt their own regulations.

## LLC Title 15.35 Flood Damage Reduction Ordinance

**Question:** Can the upper Cowlitz River be treated differently than the other areas of the county?

**Response:** All areas of unincorporated Lewis County are held to the same regulatory standard as adopted by LCC 15.35. All incorporated jurisdictions adopt their own regulatory standards.

**Question:** How do the Cities regulations for freeboard compare to this proposed update?

**Response:** The City of Centralia adopted regulations, CMC16.21, requires two feet of freeboard in all Special Flood Hazard Zones. Centralia requires three feet of freeboard in the Special Flood Overlay Zone. The City of Chehalis requires one foot of freeboard above BFE or flood of record, whichever is higher (CMC 17.22.170).

**Public Response:** To date there have been ten written responses in favor of leaving the freeboard standard at one foot. Two written responses have stated that they prefer two feet of freeboard and one response was in favor of the proposed three foot freeboard standard.

**Supplemental Information:** Additional information on mapping and FEMA may be accessed at the following web-links

[www.lewiscountywa.gov](http://www.lewiscountywa.gov)

<http://ims.lewiscountywa.gov/webmaps/fema/>

[fred.chapman@lewiscountywa.gov](mailto:fred.chapman@lewiscountywa.gov)

### **CONCLUSION:**

The Planning Commission held three workshops and two public hearings. Commissioners felt that the discussions about the increase in freeboard was valuable and productive. After considering comments from the public, industry professionals and staff, the Planning Commission voted to recommend all changes to the Flood Damage Prevention regulations with the exception of increasing freeboard to three feet. Commissioners decided that the concept of increasing freeboard to three feet was worthy of discussion again in the future.

## EXHIBIT B

### Lewis County Chapter 15.35 - UPDATE

#### Planning Commission

## Chapter 15.35 FLOOD DAMAGE PREVENTION

#### Sections:

|                  |   |
|------------------|---|
| 15.35.010        | Title.  |
| 15.35.020        | Purpose.  |
| <b>15.35.025</b> | <b>Severability.</b>                                      |
| 15.35.030        | Methods of reducing flood losses.                         |
| 15.35.040        | Definitions.  |
| 15.35.050        | Lands to which this chapter applies.                      |
| 15.35.060        | Basis for establishing the areas of special flood hazard. |
| 15.35.070        | Compliance.   |
| 15.35.080        | Abrogation and greater restrictions.                      |
| 15.35.090        | Interpretation.   |
| 15.35.100        | Criteria for land management and use.                     |
| 15.35.110        | Warning and disclaimer of liability.                      |
| 15.35.120        | Administrator— Designated.                                |
| 15.35.130        | Administrator – Duties.                                   |
| 15.35.140        | Development permits.                                      |
| 15.35.145        | Development permit fee.                                   |
| 15.35.150        | Shoreline management permits.                             |
| 15.35.160        | Appeals.  |
| 15.35.170        | Variances.  |
| 15.35.180        | Penalties and enforcement.                                |
| 15.35.190        | Flood hazard reduction – General standards.               |
| 15.35.200        | Anchoring.  |
| 15.35.210        | Construction materials and methods.                       |
| 15.35.220        | Utilities.  |
| 15.35.230        | Subdivision proposals.                                    |
| 15.35.240        | Review of building permits.                               |
| 15.35.250        | Flood hazard reduction – Specific standards.              |
| 15.35.260        | Flood protection elevation.                               |
| 15.35.270        | Residential construction.                                 |
| 15.35.280        | Nonresidential construction.                              |
| 15.35.290        | Manufactured homes.                                       |
| 15.35.295        | Recreational vehicles.                                    |
| 15.35.300        | Critical facilities.                                      |
| 15.35.310        | Floodways.  |

15.35.320 Shallow flooding areas (AO zones).

**15.35.010 Title.**

This chapter shall be known and shall be cited as the Lewis County “flood damage prevention chapter.” [Ord. 1157, 1998; Ord. 1145 § 1, 1995]

**15.35.020 Purpose.**

It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- (1) To protect human life and health;
- (2) To minimize expenditure of public money and costly flood control projects; to minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (3) To minimize prolonged business interruptions;
- (4) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- (5) To help stabilize the tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future blight areas;
- (6) To insure that potential buyers are notified that property is in an area of special flood hazard; and
- (7) To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. [Ord. 1157, 1998; Ord. 1145 § 2, 1995]

**15.35.025 Severability.**

If any section, subsection, sentence, clause, phrase, portion or part of this code is for any reason held to be invalid or unconstitutional by any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this code.

**15.35.030 Methods of reducing flood losses.**

In order to accomplish its purposes, this chapter includes methods and provisions for:

- (1) Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

- (2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;
- (4) Controlling filling, grading, dredging, and other development which may increase flood damage; and
- (5) Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas. [Ord. 1157, 1998; Ord. 1145 § 3, 1995]

**15.35.040 Definitions.**

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application.

“Appeal” means a request for a review of a “land use decision” under this chapter, as provided for in Chapter 2.25 LCC.

“Area of shallow flooding” means a designated AO or AH zone on the flood insurance rate map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. AO is characterized by sheet flow and AH indicates areas of shallow flooding where depths are between one and three feet, but no flood hazard factors are determined.

“Area of special flood hazard” means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letter A or V.

“Base flood” means the flood having a one percent chance of being equaled or exceeded in any given year. Also referred to as the “100-year flood.” Designation on maps always includes the letters A or V.

“Basement” means any area of the building having its floor sub-grade (below ground level) on all sides, partly or completely below grade.

“Beneficial purpose” shall mean a ‘beneficial use’ of fill or materials deposition, involving purposeful development which includes, but is not limited to commercial and residential buildings, and road and utilities construction, in a manner consistent with protection of human health and public safety.

“Best available information” means data from federal, state, or other sources; provided this data has either been generated using technically defensible methods or is based on reasonable

historical analysis and experience. Flood data from existing flood events may be used where flood events are considered more accurate indicators of past base flood conditions. Any variance from adopted flood insurance rate maps must be of a more restrictive nature.

“Critical facility” means a facility for which even a slight chance of flooding would be too great. Critical facilities include but are not limited to schools, hospitals, police, fire and emergency response installations, nursing homes, installations which produce, use, or store hazardous materials or hazardous waste.

“Designated floodway” means the regulatory floodway which has been delineated on the flood insurance rate map (FIRM) or the flood boundary/floodway map (FBFM) of the Lewis County flood insurance study and is included in this chapter.

“Development” means any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, drilling operations or storage of equipment and materials located within the area of special flood hazard. Practices that are normal or necessary for farming and ranching are not considered to be “development.”

“Flood” or “flooding” means a general and temporary condition of partial or complete inundation of normal dry land areas from:

- (a) The overflow of inland or tidal waters; and/or
- (b) The unusual and rapid accumulation of runoff of surface waters from any source.

“Flood insurance rate map” means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

“Flood insurance study” means the official report provided by the Federal Insurance Administration that includes flood profiles, the flood boundary floodway map, and the water surface elevation of the base flood.

“Flood protection elevation” means one foot above the base flood elevation.

“Floodway” means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

“Freeboard” is an additional height requirement above the base flood elevation (BFE) that provides a margin of safety against extraordinary or unknown risks. This protects structures from waves, debris or unpredictable hazards that accompany the base flood.

“Lowest floor” means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or

storage, in an area other than a basement area, is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable no elevation design requirements of this chapter found at LCC 15.35.270.

"Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes the term "manufactured home" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. For insurance purposes the term "manufactured home" does not include park trailers, travel trailers, and other similar vehicles.

"Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

"Market value" as used for the purposes of determining substantial improvement, market value pertains only to the structure in question. It does not pertain to the land, landscaping or detached accessory structures on the property. Any value resulting from the location of the property should be attributed to the value of the land, not the building. Acceptable estimates of market value can be obtained in the following ways:

- (a) An independent appraisal by a professional appraiser. The appraisal must exclude the value of the land and not use the "income capitalization approach" which bases value on the use of the property, not the structure.
- (b) Detailed estimates of the structure's actual cash value— the replacement cost for a building, minus a depreciation percentage based on age and condition. For most situations, the building's actual cash value should approximate its market value. Your community may prefer to use actual cash value as a substitute for market value, especially where there is not sufficient data or enough comparable sales.
- (e) Property values used for tax assessment purposes with an adjustment recommended by the tax appraiser to reflect current market conditions (adjusted assessed value).
- (f) The value of buildings taken from NFIP claims data (usually actual cash value).
- (g) Qualified estimates based on sound professional judgment made by the staff of the local building department or tax assessor's office.

"Necessary" as in the phrase 'not greater than is necessary' shall mean that which is reasonable to effect the intended purpose.

"New construction" means structures for which the "start of construction" commenced on or after the effective date of the ordinance codified in this chapter.

“Person” means an individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, or any agency of the state or local governmental unit however designated.

“Recreational Vehicle” shall mean a vehicle which is:

- (a) Built on a single chassis;
- (b) 400 square feet or less when measured at the largest horizontal projection;
- (c) Designed to be self-propelled or permanently towable; and
- (d) Designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use.

“Repetitive Loss” means a residential property that is covered under an NFIP flood insurance policy and:

- (a) That has at least four NFIP claim payments (including building and contents) over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or
- b) For which at least two separate claims payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building.

For both (a) and (b) above, at least two of the claims must have occurred within any ten-year period, and must be greater than 10 days apart.

“Special flood hazard area” means an area subject to a base or 100-year flood; areas of special flood hazard are shown on a flood hazard boundary map or flood insurance rate map as zone A, AO, AI-30, AE, A99, AH, VO, V1-30, VE, or V.

“Start of construction” includes substantial improvement, and means the date the building permit was issued; provided, the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include excavation for a basement, footings, piers, or foundation or the erection of temporary forms; nor does it include the installation of streets and/or walkways;; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a



building ~~or structure~~, whether or not that alteration affects the external dimensions of the building.

“Structure” means a walled and roofed building including a gas or liquid storage tank that is principally above ground. Manufactured homes are considered structures.

“Substantial Damage” means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged conditions would equal or exceed 50 percent of the market value of the structure before the damage occurred. This term includes structures which have incurred “repetitive loss”.

“Substantial improvement” means any repair, reconstruction, or improvement of a structure the cost of which equals or exceeds 50 percent of the market value of the structure either:

- (a) Before the improvement or repair is started; or
- (b) If the structure has been substantially damaged and is being restored, before the damage occurred. For the purposes of this definition, “substantial improvement” is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure; or
- (c) When the cumulative value of improvements or repairs reaches 50 percent over a 10-year period.

The term does not, however, include either:

- (a) Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which have been identified by a local building, code enforcement or health official and which are the minimum necessary to assure safe living conditions; or
- (b) Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

“Variance” means the grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.

“Water Dependent”. A water-dependent structure for commerce or industry is one which cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operation.

“Wetlands” means lands defined under LCC 17.35.405 LCC, Wetland – Wetlands). [Ord. 1204 Exh. A § 5, 2008; Ord. 1145C, §1, 2000; Ord. 1145B, §1, 1999; Ord. 1145A §1, 1998; Ord. 1157, 1998; Ord. 1145 § 4, 1995]

**15.35.050 Lands to which this chapter applies.**

This chapter shall apply to all areas subject to a base flood and/or designated as an area of special flood hazard within the jurisdiction of Lewis County. [Ord. 1157, 1998; Ord. 1145 § 5(A), 1995]

**15.35.060 Basis for establishing the areas of special flood hazard.**

The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled “The Flood Insurance Study for Lewis County”(FIS)dated November 1981, and as amended, with accompanying flood insurance rate maps, as adopted on December 15<sup>th</sup>, 1981 is by reference declared to be a part of this chapter. The 1981 report, as adopted will serve as the official document, unless a new FIS study is adopted by Lewis County. The flood insurance study is on file at the Lewis County Public Service, Department of Community Services, Building Section, Chehalis, Washington and the Lewis County Auditor’s Office, Courthouse, Chehalis, Washington. In the event the map is insufficient, best available information should be used to determine the flood hazard zone. [Ord. 1157, 1998; Ord. 1145 § 5(B), 1995]

**15.35.070 Compliance.**

All development shall hereafter proceed in compliance with the terms of this chapter and other applicable regulations. [Ord. 1157, 1998; Ord. 1145 § 5(C), 1995]

**15.35.080 Abrogation and greater restrictions.**

This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions which may be enforced by private action among the affected parties. This chapter establishes the standards for public action. [Ord. 1157, 1998; Ord. 1145 § 5(D), 1995]

**15.35.090 Interpretation.**

In the interpretation and application of this chapter, all provisions shall be:

- (1) Considered as minimum requirements;
- (2) Liberally construed in favor of the governing body; and
- (3) Deemed neither to limit nor repeal any other powers granted under state statutes. [Ord. 1157, 1998; Ord. 1145 § 5(E), 1995]

**15.35.100 Criteria for land management and use.**

The standards and definitions contained in 44 CFR, Parts 59 and 60 for the National Flood Insurance Program, Chapter 86.16 RCW and Chapter 173-158 WAC, and Chapter 17.35 LCC,

Critical Areas, are adopted as the minimum state standards by reference. [Ord. 1157, 1998; Ord. 1145 § 5(F), 1995]

**15.35.110 Warning and disclaimer of liability.**

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. Lewis County and any of its officers or employees are not responsible for the accuracy of materials submitted for review and does not guarantee that flood damage will not result from reliance on this chapter or any administrative decision lawfully made thereunder. [Ord. 1157, 1998; Ord. 1145 § 5(G), 1995]

**15.35.120 Administrator – Designated.**

The building official for the county or his designee shall be designated as administrator and shall be responsible for interpreting, developing and applying the provisions and requirements of this chapter. [Ord. 1157, 1998; Ord. 1145 § 6(A)(1), 1995]

**15.35.130 Administrator – Duties.**

Duties of the building official shall include, but are not limited to:

- (1) Permit Review.
  - (a) Review all development permits to determine that the permit requirements of this chapter have been satisfied.
  - (b) Review all development permits to determine that all necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required.
  - (c) Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of LCC 15.35.310(1) are met.
  - (d) Provide a copy of the permit application and site plan to the planning department for review and comment.
- (2) Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with LCC 15.35.060, the building official shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from federal, state, or other source, in order to administer LCC 15.35.270, 15.35.280 and 15.35.310.
- (3) Information to be Obtained and Maintained.

- (a) Where base flood elevation is provided through the flood insurance study or required as in subsection (2) of this section, the developer shall provide to the building official the actual elevation to which the structure was flood-proofed, certified by a licensed land surveyor, (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement. The building official shall record this elevation.
- (b) For all new or substantially improved floodproofed structures:
  - (i) The developer shall provide to the building official the actual elevation, certified by a licensed land surveyor. The building official shall record this elevation.
  - (ii) The building official shall maintain the floodproofing certifications required in LCC 15.35.140(3).
- (c) The building official shall maintain for public inspection all records pertaining to the provisions of this chapter.
- (4) Alteration of Watercourses.
  - (a) Notify adjacent communities and the Department of Ecology prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
  - (b) Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.
- (5) Interpretation of FIRM Boundaries. Make interpretations, where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in LCC 15.35.160. [Ord. 1145C § 2, 2000; Ord. 1157, 1998; Ord. 1145 § 6(A)(2), 1995]

#### **15.35.140 Development permits.**

A development permit entitled flood hazard zone permit shall be obtained before construction or development begins within any area of special flood hazard established in LCC 15.35.060. The permit shall be for all structures including manufactured homes, as set forth in LCC 15.35.040 and for all other development including fill and other activities, also as set forth in LCC 15.35.040. Application for a development permit shall be made on forms furnished by the building official and shall include (but not be limited to) site plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically the following information is required:

- (1) Elevation in relation to mean seal level, of the lowest floor (including basement) of all structures;
- (2) Elevation in relation to mean sea level to which any structure has been floodproofed;
- (3) Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in LCC 15.35.270;
- (4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development; and
- (5) The applicant shall indicate the exact location of the proposed structures or development upon a copy of the flood hazard map and shall certify in writing that the location shown is correct. Applicant may also make such certification upon an accurate site plan showing location of readily identifiable physical features.
- (6) Every permit issued by the administrator in accordance with this chapter shall expire by limitation and become null and void if the work authorized by such permit is not commenced within 180 days from the effective date of such permit, or if the work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days. Before such work can be recommenced, a new permit shall be first obtained using the most current maps and flood insurance study., The fee shall be one half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans or specifications, and provided further that such suspension or abandonment has not exceeded one year. In order to renew action on a permit after an expiration exceeding one year, the permittee shall pay a new, full permit fee and submit to full permit review. Any permittee holding an unexpired permit may apply for an extension of time within which work may be commenced under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. For good cause shown, a permittee with an active permit may be granted up to two successive six-month extensions for time of action required under this section. For each extension, the permit must be reviewed for compliance with the most current maps and flood insurance study. In no event, however, shall the work authorized by such permit extend beyond two (2) years of the effective date of the permit under this section. For purposes of this section, the effective date of the permit shall be the date of the last action required on the permit and all other government permits and approvals that authorize the development to proceed, including all administrative and legal actions on any such permit or approval. It is the responsibility of the applicant to inform the Administrator of the pendency of other permit applications filed with agencies other than the County and of any related administrative and legal actions on any permit or approval. If no notice of the pendency of other permits or approvals is given to the Administrator by the applicant prior to the expiration date established by the permit or the provisions of this section, the expiration shall be based on the original permit date. [Ord. 1145A §2, 1998; Ord. 1157, 1998; Ord. 1145 § 6(A)(3), 1995]

**15.35.145 Development Fees.**

A fee for a development permit hereunder shall be as set forth in LCC 18.05.055. [Ord. 1145B §2, 1999]

**15.35.150 Shoreline management permits.**

A shoreline management substantial development permit shall accompany a Joint Aquatics Application Permit and a Flood Plain Development permit. A shoreline management substantial development permit issued pursuant to Chapter 90.58 RCW (Shoreline Management Act of 1971) and the Lewis County shoreline management master program and Chapter 17.25 LCC may serve as the flood hazard zone permit for those developments and structures that are within both a flood hazard zone and an area under jurisdiction of the Shoreline Management Act. [Ord. 1145C § 3, 2000; Ord. 1157, 1998; Ord. 1145 § 6(A)(4), 1995]

**15.35.160 Appeals.**

Hearing Examiner. Any decision of the administrator in the interpretation and application of this chapter may be appealed pursuant to Chapter 2.25 LCC. [Ord. 1157, 1998; Ord. 1145 § 6(B), 1995]

**15.35.170 Variances.**

(1) Administration. The administrator shall hear and decide requests for variances.

(2) Application. Application for a variance request shall be submitted in conjunction with any permit request, and any notice required for such permitting shall include notice of the request for variance.

(3) Standards of Review. In deciding upon a request for variance, the administrator shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter, and the following:

- (a) The danger that materials may be swept onto other lands to the injury of others;
- (b) The danger to life and property due to flooding or erosion damage;
- (c) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
- (d) The importance of the services provided by the proposed facility to the community;
- (e) The necessity to the facility of a waterfront location, where applicable;
- (f) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;

- (g) The compatibility of the proposed use with existing and anticipated development;
  - (h) The relationship of the proposed use to the comprehensive plan, if any, and floodplain management program for that area;
  - (i) The safety of access to the property in times of flood for ordinary and emergency vehicles;
  - (j) The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site;
  - (k) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges;
  - (l) A showing of good and sufficient cause;
  - (m) A determination that failure to grant the variance would result in exceptional hardship to the applicant;
  - (n) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public as identified in subsections (a) through (k) above, or conflict with existing local laws or ordinances.
- (4) General Requirements. The only condition under which a variance from the elevation standard may be used is for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level; provided subsections (3)(a) through (n) of this section have been fully considered. As the lot size increases the technical justification required for issuing the variance increases.
- (5) General Restrictions. The issuance of variances shall be further limited by the following general issuance restrictions:
- (a) Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places without regard to the procedures set forth in this section, provided that the issuance of the variances will not preclude the structures listing as a historical structure.
  - (b) Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.
  - (c) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

- (d) Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.
- (e) Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of floodproofing than watertight or dry-floodproofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria except subsection (4) of this section, and otherwise complies with LCC 15.35.200 and 15.35.210.
- (6) Notice. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will result in an increased premium rate commensurate with the increased risk resulting from the reduced lowest floor elevation. [Ord. 1157, 1998; Ord. 1145 § 6(C), 1995]

#### **15.35.180 Penalties and enforcement.**

- (1) It shall be unlawful for any person(s) to violate any provision of this chapter.
- (2) A notice of violation and order for penalty may be issued by the administrator or designee pursuant to LCC 1.20.040; except, that the cumulative penalty may total up to \$1,000 per day for each violation assessed against the person(s) to whom the notice and order to correct the violation is directed.
- (3) Any penalty jointly imposed by the administrator and by Lewis County pursuant to WAC 173-158-090 may be subject to appeal directly to the Pollution Control Hearings Board of the state of Washington, by and through the administrative procedures governing the board. [Ord. 1157, 1998; Ord. 1145 § 6(D), 1995]

#### **15.35.190 Flood hazard reduction – General standards.**

In all areas of special flood hazards the standards of LCC 15.35.200 through 15.35.240 are required. In addition, in all areas of special flood hazards:

Any fill or materials to be deposited within special flood hazard areas must have a beneficial purpose and the amount thereof not greater than is necessary to achieve that purpose, as demonstrated by a complete application submitted by the legal owner(s) showing the uses to which the filled land will be put and the final dimensions of the proposed fill or other materials. Any placement of fill or encroachments shall minimize the net increase in flood levels to less than or equal to the federal standard of one-foot increase in flood levels from the cumulative effect of the proposed development when combined with all other existing and anticipated development during the occurrence of the base flood discharge. The county may adopt a



program to limit the cumulative impacts of fill to meet the FEMA standard of an overall increase not to exceed one foot in any watershed or sub-basin or an applicant may provide a study that demonstrates compliance with the one-foot cumulative rise standard; provided, that up to 500 cubic yards of permitted fill may be placed outside of the mapped floodway on an existing parcel under contiguous ownership without complying with the above standard. This exemption does not apply when there is no mapped floodway in the special flood hazard area. However, the requirement of LCC 15.35.310 shall continue to apply for any encroachment into a FEMA identified floodway. All or substantial alteration of existing facilities, including roadways, except approved flood control structures, shall incorporate provisions to allow the free movement of floodwaters and may require retrofitting to remove barriers to flood movement.

[Ord. 1204 Exh. A § 5, 2008; Ord. 1145A § 3, 1998; Ord. 1157, 1998; Ord. 1145 § 7(A), 1995]**15.35.200 Anchoring.**

- (1) All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- (2) All manufactured homes must likewise be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (Reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques). [Ord. 1157, 1998; Ord. 1145 § 7(A)(1), 1995]

**15.35.210 Construction materials and methods.**

- (1) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- (2) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
- (3) Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated one foot above base flood so as to prevent water from entering or accumulating within the components during conditions of flooding. [Ord. 1157, 1998; Ord. 1145 § 7(A)(2), 1995]

**15.35.220 Utilities.**

- (1) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;
- (2) New and replacement sanitary sewer systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters; and

(3) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding. [Ord. 1157, 1998; Ord. 1145 § 7(A)(3), 1995]

**15.35.230 Subdivision proposals.**

(1) All subdivision proposals shall be consistent with the need to minimize flood damage. Subdivisions within special flood hazard areas shall be clustered on the highest portion of the property to avoid flood hazards. Land that is located partially within a special flood hazard area may be divided; provided, that each resulting lot has sufficient buildable area and access to the lot is provided outside of the special flood hazard area. All plats and short plats will clearly show the boundary of the flood hazard area including any floodway together with a restriction on development within the hazard area;

(2) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water system source treatment and storage located outside the special flood hazard area, except where there is no feasible alternative. If allowed, such facilities shall be constructed to minimize flood damage;

(3) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and

(4) Where base flood elevation data has not been provided, or is not available from another authoritative source, the data shall be generated by the applicant as a condition of permitting. [Ord. 1204 Exh. A § 5, 2008; Ord. 1157, 1998; Ord. 1145 § 7(A)(4), 1995]

**15.35.240 Review of building permits.**

Where elevation data is not available either through the flood insurance study or from another authoritative source (LCC 15.35.130 (2)), applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates. [Ord. 1157, 1998; Ord. 1145 § 7(A)(5), 1995]

**15.35.250 Flood hazard reduction – Specific standards.**

In all areas of special flood hazards where base flood elevation data has been provided as set forth in LCC 15.35.060 or 15.35.130(2), the provisions of LCC 15.35.260 through 15.35.300 are required. [Ord. 1157, 1998; Ord. 1145 § 7(B), 1995]

**15.35.260 Flood protection elevation.**

In order to account for the impacts of future development on flood depths, and in order to ensure the least expensive insurance rates for floodplain occupants, all development within special flood hazard areas which requires elevation or floodproofing shall be elevated or

floodproofed to or above the flood protection elevation (base flood elevation plus one foot of freeboard). [Ord. 1157, 1998; Ord. 1145 § 7(B)(1), 1995]

**15.35.270 Residential construction.**

- (1) New construction on existing parcels, additions, and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to the flood protection elevation.
- (2) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:
  - (a) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
  - (b) The bottom of all openings shall be no higher than one foot above grade.
  - (c) Openings may be equipped with screens, louvers, or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters. [Ord. 1204 Exh. A § 5, 2008; Ord. 1157, 1998; Ord. 1145 § 7(B)(2), 1995]

**15.35.280 Nonresidential construction.**

New construction, additions, and substantial improvement of any commercial, industrial, or other nonresidential structure requiring a building permit, shall either have the lowest floor, including basement, elevated to the flood protection elevation, or, together with attendant utility and sanitary facilities, shall:

- (1) Be floodproofed so that below the flood protection elevation the structure is watertight with walls substantially impermeable to the passage of water;
- (2) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
- (3) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in LCC 15.35.130(3)(b);
- (4) Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in LCC 15.35.260;

(5) Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g., a building constructed to the base flood level will be rated as one foot below that level). [Ord. 1157, 1998; Ord. 1145 § 7(B)(3), 1995]

**15.35.290 Manufactured homes.**

All manufactured homes to be placed or substantially improved within zones A1-30, AH, and AE shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at the flood protection elevation and be securely anchored to an adequately anchored foundation system in accordance with the provisions of LCC 15.35.200(2). [Ord. 1157, 1998; Ord. 1145 § 7(B)(4), 1995]

**15.35.295 Recreational vehicles.**

(1) All recreational vehicles to be placed within zones A1-30, AH and AE shall:

- (a) Be on the site for fewer than 180 consecutive days; or
- (b) Be fully licensed and ready for highway use, on its wheels or jacking system, be attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or
- (c) Meet the requirements of LCC 15.35.290, and the elevation and anchoring requirements for manufactured homes. [Ord. 1145B §3, 1999]

**15.35.300 Critical facilities.**

Critical facilities should be afforded additional flood protection due to their nature. Construction of new critical facilities shall be located outside the limits of the 100-year floodplain as identified on the community's FIRM, or as identified by Lewis County as being an area of high flood risk whether or not the location is identified on the FIRM, unless no alternative location is feasible. Substantial modification of existing critical facilities shall include an analysis of whether relocation is feasible. Construction of new critical facilities permitted within the 100-year frequency floodplain shall have the lowest floor elevated to three or more feet above the level of the 100-year frequency flood. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the 100-year frequency flood shall be provided to all critical facilities to the extent possible. [Ord. 1204 Exh. A § 5, 2008; Ord. 1157, 1998; Ord. 1145 § 7(B)(5), 1995]

**15.35.310 Floodways.**

Areas designated as floodways are located within areas of special flood hazard established in LCC 15.35.060. Because the floodway is an extremely hazardous area due to the velocity of

floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

(1) Landfill, potable water supply wells, substantial improvements, and new construction are prohibited. Other development may be allowed only if certification by a registered professional, Washington State engineer or architect is provided (through hydrologic and hydraulic analyses performed in accordance with standard engineering practice) demonstrating that the encroachments will not result in any increase in flood levels during the occurrence of the base flood discharge. Compensatory storage for floodwaters may be required.

(2) Special flood hazard areas with designated floodways. In addition to those NFIP requirements for designated floodways, communities with designated floodways shall restrict land uses within such areas to include the prohibition of construction or reconstruction of residential and nonresidential structures, except for:

- (a) Repairs, reconstruction, or improvements to a structure which do not increase the ground floor area; and
- (b) Repairs, reconstruction, or improvements which are not substantial improvements as defined in LCC 15.35.040(25).

(3) Special flood hazard areas without designated floodways. In areas with base flood elevations (for which a regulatory floodway has not been designated) no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1 – 30 and AE on the community's FIRM that will increase the water surface elevation of the base flood during the occurrence of the base flood discharge unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community. Building and development without a designated floodway shall comply with the requirements of 44 CFR 60.3(b)(3) and (4), and (c)(10) of the National Flood Insurance Program regulations.

#### 40 CFR 60.3

(b)(3) Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or five acres, whichever is the lesser, include within such proposals base flood elevation data; and

(b)(4) Obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, including data developed pursuant to subsection ((b)(3) of this section, as criteria for requiring that new construction, substantial improvements, or other development in Zone A on the community's FHBM or FIRM meet the standards in paragraphs (c)(2), (c)(3), (c)(5), (c)(6), (c)(12), (c)(14), (d)(2) and (d)(3) of this section;

(c)(10) Require until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood.

[Ord. 1204 Exh. A § 5, 2008; Ord. 1145A §4, 1998; Ord. 1157, 1998; Ord. 1145 § 7(C), 1995]

**15.35.320 Shallow flooding areas (AO zones).**

Shallow flooding areas appear on FIRMs as AO zones with depth designations. The base flood depths in these zones range from one to three feet where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. In these areas, the following provisions apply:

(1) New construction and substantial improvements of residential structures within AO zones shall not result in any increase in flood levels during the occurrence of the base flood discharge. Compensatory storage for floodwaters may be required. New construction and substantial improvements of residential structures must be constructed with the lowest floor (including basement) elevated above the highest adjacent grade of the structure, one foot or more above the depth number specified on the FIRM (at least two feet if no depth number is specified).

(2) New construction and substantial improvements of nonresidential structures within AO zones shall either:

(a) Have the lowest floor (including basement) elevated above the highest adjacent grade of the structure, one foot or more above the depth number specified on the FIRM (at least two feet if no depth number is specified); or

(b) Together with attendant utility and sanitary facilities, be completely floodproofed to that level specified in subsection (2)(a) of this section so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect as in LCC 15.35.280(3).

(3) Require adequate drainage paths around structures on slopes to slide floodwaters around and away from proposed structures.

(4) All recreational vehicles to be placed within AO zones shall:

(a) Be on the site for fewer than 180 consecutive days; or

- (b) Be fully licensed and ready for highway use, on their wheels or jacking system, be attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or
- (c) Meet the requirements of subsections (1), (2) and (3) of this section, and the anchoring requirements for manufactured homes. [Ord. 1204 Exh. A § 5, 2008; Ord. 1145C §§4 & 5, 2000; Ord. 1157, 1998; Ord. 1145 § 7(D), 1995]

Lewis County – Code Amendment  
LLC Title 15.35 Flood Damage Prevention  
Planning Commission Staff Report

**ISSUE:**

FEMA Region X conducted a Community Assistance Visit on August 3, 2011. As part of that review FEMA staff recommended specific improvements to the current adopted Ordinance 15.35. The modifications and proposed changes to Title 15.35 have been identified by strike thru for deletions and underlining for additions or changes to the original text. The proposed update will make the ordinance compliant with the Washington State Model Ordinance as well as the Federal CFR 59.1. The update may also help the county improve its CRS rating.

**DISCUSSION:**

The main point of discussion and the most controversial change is the proposed increase of Flood Protection Elevation or Freeboard. Current adopted regulations require **one foot of freeboard** above the base flood elevation (BFE). The proposed modification is to require all new commercial and single family residential (SFR) structures or substantial improvement to a SFR be elevated to **three feet of freeboard** above base flood elevation.

**REASONS FOR INCREASE IN FREEBOARD:**

There are design and construction practices that can eliminate or minimize damage to buildings when flood levels exceed the BFE. The most common approach is to add freeboard to the design (i.e., to elevate the building higher than required by the Flood Insurance Rate Map (FIRM)).

This proposed increase will provide an extra margin of safety to prevent flooding from unforeseen events like wave action from boats or vehicles. There are other benefits of increasing for flood levels above the BFE:

- reduced building damage and maintenance;
- longer building life;
- reduced flood insurance premiums;
- reduced displacement and dislocation of building occupants after floods (and need for temporary shelter and assistance);
- reduced job loss; and
- increased retention of tax base.

The cost of adding freeboard at the time of home construction is modest, and reduced flood insurance premiums will recover the freeboard cost in a few years' time.

**IMPACTS TO LANDOWNERS AND BUILDERS:**

The impacts of this proposal are two- fold: there will be a visual impact due to the increased height of the foundation and a monetary increase to the cost of the foundation. Cost estimates based on current labor and materials have determined the additional expenditure to be approximately \$2,000.00 for a 2,000 square foot home. The monetary impact also affects the insurance cost. Below are examples of projected cost provided by FEMA.



**Flood Insurance Premium Examples**  
**Effective: January 1, 2013**  
**Post-FIRM AE Zone Single Family Residence**

| Single Family One-Story No Basement/Enclosure | \$250,000 Building Coverage Only | \$250,000 Building With \$100,000 in Contents |
|---|----------------------------------|---|
| Lowest Floor Elevation Difference             | Flood Insurance Premium          |   |
| 3 feet of freeboard                           | \$376                            | \$561   |
| 2 feet of freeboard                           | \$448                            | \$633   |
| 1 foot of freeboard                           | \$660                            | \$845   |

**EXPLANATION OF PROPOSED CHANGES:**

As part of the Lewis County Development Code, Chapter 15.35 applies only to new development and improvements such as remodels and repairs or any other work that requires a permit and compliance with flood regulations.

**EXISTING STRUCTURES ARE NOT REQUIRED TO BE ELEVATED UNLESS IMPROVEMENTS OR REPAIRS EXCEED 50% OF THE MARKET VALUE OF THE STRUCTURE**

*Table of Proposed Changes (lined out items: proposal withdrawn)*

| Code Section  | Why is change proposed?   |
|---|---|
| <b>15.35.025 Severability</b><br><i>Added new section</i> | Compliance with National Flood Insurance Program Community Assistance Visit (NFIP CAV)  |
| <b>15.35.040 Definitions</b><br><i>Removed numbering</i>  | Staff initiative, better for updating, numbering is unnecessary   |
| <b>Basement</b>   | Compliance with NFIP CAV  |
| <b>Best available information</b>                         | Compliance with NFIP CAV  |
| <b>Development</b>  | Compliance with NFIP CAV  |
| <b><del>Flood protection elevation</del></b>              | Staff proposal on 3 feet freeboard, benefit is potentially higher CRS rating leading to a higher discount on insurance rates; current 1 foot freeboard is higher than required resulting in a higher CRS rating |
| <b>Freeboard</b>  | Compliance with NFIP CAV  |
| <b>Market Value</b>                                       | Requested by planning commission  |
| <b>Repetitive loss</b>                                    | Compliance with NFIP CAV  |
| <b>Start of construction</b>                              | Compliance with NFIP CAV  |
| <b>Substantial improvement</b>                            | Compliance with NFIP CAV  |
| <b>Substantial damage</b>                                 | Compliance with NFIP CAV  |

LLC Title 15.35 Flood Damage Reduction Ordinance

| Code Section   | Why is change proposed?  |
|--|--|
| <b>15.35.060 Basis for establishing the areas of special flood hazard</b><br><i>Clarified language stating that the 1981 Flood Insurance Study is the "official" basis for determining whether property is in the floodplain</i> | Compliance with NFIP CAV   |
| <b>15.35.140 Development permits</b><br><b>(6)</b> <i>Clarified permit requirements</i>  | Compliance with NFIP CAV   |
| <b>15.35.150 Shoreline management permits</b><br><i>Clarified the procedure</i>  | Compliance with NFIP CAV   |
| <b>15.35.170 Variances</b><br><b>(5)(a) General restrictions</b><br><i>"historical structures"</i><br><b>(6) Notice</b><br><i>"result in an increase in premiums"</i>  | Compliance with NFIP CAV<br>Compliance with NFIP CAV   |
| <b>15.35.190 General standards</b><br><b>(1)</b> <i>placement of fill</i><br><b>(2)</b> <i>deleted</i>   | Compliance with NFIP CAV<br>Section expired in 2002  |
| <b>15.35.210 Construction materials and methods</b><br><b>(3)</b> <i>1 foot above base flood</i>   | Staff proposal for consistency with the Lewis County building code which already requires elevating service facilities to one foot of freeboard. (LCC 15.05.020(1)(b) adopting IRC Section R322.1.6 shown below) |
| <b>15.35.260 Flood protection elevation</b><br><i>"...of freeboard..."</i><br><i>3 feet of freeboard</i>   | Compliance with NFIP CAV   |
| <b>15.35.270 Residential construction</b><br><b>(1)</b> <i>3 feet of freeboard</i>   | Staff proposal ( <i>see reasons for increase above</i> )   |
| <b>15.35.280 Nonresidential construction</b><br><i>"...requiring a building permit..."</i><br><i>3 feet of freeboard</i>   | Requested by Planning Commission – to clarify nonresidential structures that must meet this requirement. Requirement is consistent with LCC 15.05.020(1)(b) adopting IRC R105.2, shown below                     |
| <b>15.35.290 Manufactured homes</b><br><i>3 feet of freeboard</i>  | Staff proposal ( <i>see reasons for increase in freeboard above</i> )  |
| <b>15.35.310 Floodways</b><br><b>(3)</b> <i>deleted "near streams"</i>   | Compliance with NFIP CAV   |

**CONSISTENCY WITH BUILDING CODE AND THE INTERNATIONAL RESIDENTIAL CODE (IRC)**

The International Residential Code (IRC) was adopted by reference in Ordinance 1220 in 2009 (LCC 15.05.020(1)(b)).

**IRC R105.2 Work exempt from permit.** Permits shall not be required for the following. Exemption from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

**Building:**

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 200 square feet (18.58 m<sup>2</sup>).
2. Fences not over 6 feet (1829 mm) high.
3. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
4. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
5. Sidewalks and driveways.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
8. Swings and other playground equipment.
9. Window awnings supported by an exterior wall which do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
10. Decks not exceeding 200 square feet in area that are not more than 30 inches above grade at any point, and are not attached to a dwelling and do not serve the exit door required by Section R311.4.

**R322.1.6 Protection of mechanical and electrical systems.** Electrical systems, *equipment* and components; heating, ventilating, air conditioning; plumbing *appliances* and plumbing fixtures; *duct systems*; and other service *equipment* shall be located at or above the elevation required in Section R322.2 (flood hazard areas including A Zones) or R322.3 (coastal high-hazard areas including V Zones). If replaced as part of a substantial improvement, electrical systems, *equipment* and components; heating, ventilating, air conditioning and plumbing *appliances* and plumbing fixtures; *duct systems*; and other service *equipment* shall meet the requirements of this section. Systems, fixtures, and *equipment* and components shall not be mounted on or penetrate through walls intended to break away under flood loads.

## LLC Title 15.35 Flood Damage Reduction Ordinance

**Exception:** Locating electrical systems, *equipment* and components; heating, ventilating, air conditioning; plumbing *appliances* and plumbing fixtures; *duct systems*; and other service *equipment* is permitted below the elevation required in Section R322.2 (flood hazard areas including A Zones) or R322.3 (coastal high-hazard areas including V Zones) provided that they are designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to the design flood elevation in accordance with ASCE 24. Electrical wiring systems are permitted to be located below the required elevation provided they conform to the provisions of the electrical part of this code for wet locations.

## QUESTIONS AND RESPONSES

### April 23<sup>rd</sup> Planning Commission Public Hearing - Chehalis

**Question:** Master Builders Lewis County asked "will the proposal affect all of Lewis County?"

**Response:** No, the proposed change only would apply to unincorporated areas of the County. Incorporated jurisdictions must adopt their own standards under their governing authority.

**Question:** How long have the current regulations been in place?

**Response:** Lewis County entered the regular National Flood Insurance Program (NFIP) on December 15, 1981. Lewis County residents would not be eligible for any disaster funding, public or private, if the County was not a member of NFIP.

**Question:** What are the benefits of belonging to the National Flood Insurance Program Community Rating System (CRS) and what are the effects on the County and its residences now?

**Response:** Lewis County began participating in the CRS program in 1981 and currently carries a Class 7 rating which includes a 15% premium reduction. The CRS program is a voluntary incentive that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the following three goals of the CRS:

1. *Reduce flood damage to insurable property;*
2. *Strengthen and support the insurance aspects of the NFIP, and*
3. *Encourage a comprehensive approach to floodplain management.*

#### How Flood Insurance Premium Discounts are Calculated

The CRS classes for local communities are based on 18 creditable activities, organized under four categories:

1. *Public Information,*
2. *Mapping and Regulations,*
3. *Flood Damage Reduction, and*
4. *Flood Preparedness.*

The table below shows the ten classifications and premium reductions given for communities in the NFIP CRS based how well they meet the criteria of the four categories.

| Class | Premium Reduction | Class | Premium Reduction |
|-------|-------------------|-------|-------------------|
| 1     | 45%               | 6     | 20%               |
| 2     | 40%               | 7     | 15%               |
| 3     | 35%               | 8     | 10%               |
| 4     | 30%               | 9     | 5%                |
| 5     | 25%               | 10    | 0%                |

## QUESTIONS AND RESPONSES

### May 14<sup>th</sup> Planning Commission Public Hearing - Randle

**Question:** If the County adopts the new freeboard standard is there a guarantee that Lewis County will get a better rating from FEMA?

**Response:** No. The County is currently going through an audit on the Community Rating System (CRS) and the hope is to obtain the best rating we can, but there are no guarantees that a reduction in our current rating will be the result.

**Question:** Who is requiring this increase in freeboard? Why?

**Response:** Staff proposed this increase as part of an ordinance update. We wanted to get people out of harm's way and reduce their risk from flood events. The rest of the update was generated by a Community Assistance Visit from FEMA Region X in October 2011; the review made specific recommendations for updates to the current ordinance to address some needed changes to stay compliant with the National Flood Insurance Program (NFIP) requirements.

**Question:** How can I find out if my property is in the floodplain?

**Response:** The Lewis County map website has the latest FEMA floodplain maps. The website can be accessed at <http://ims.lewiscountywa.gov/webmaps/fema/>. You may also call Lewis County Community Development if you'd like further assistance at 360-740-1146.

**Question:** Will banks provide a mortgage for an existing house that does not meet the three feet freeboard requirement?

**Response:** Any structure that meets the local adopted NFIP regulations is eligible for financing and insurance coverage.

**Question:** If my home is damaged by a tree falling on the home or is damaged by fire we would not be allowed to repair or rebuild it.

**Response:** The regulations mandate that any structure within the *floodway* that is substantially damaged by any means (51% or more) shall be condemned and may not be repaired. Structures located in a *floodplain* may be repaired if the structure is substantially damaged. Under the current regulations it would have to elevate to the one foot freeboard above the Base Flood Elevation (BFE) requirement. If the three feet freeboard standard is approved as a higher regulatory standard then the three feet freeboard requirement would apply.

**Question:** What does ICC mean? Are the funds guaranteed?

**Response:** ICC stands for Increased Cost of Compliance. The funding for ICC is provided by the Federal Government through FEMA under CFR 44. The funding is guaranteed and provides home owners with a standard flood insurance policy that have sustained a flood loss when the community official declares the structure to be substantially damaged. ICC will help pay up to

## LLC Title 15.35 Flood Damage Reduction Ordinance

a maximum of \$30,000 of the cost to assist in elevating, floodproofing, demolishing or relocating the structure.

**Question:** Will non-residential structures be required to elevate to the three feet freeboard standard?

**Response:** No. FEMA does not require accessory structures to be insured under the NFIP. Structures such as tool sheds, greenhouses and barns are not covered under the NFIP policies. Lending institutions may require insurance coverage if the accessory structure is part of the mortgage.

**Concern:** There is a concern about the cost to elevate to the three foot freeboard requirement.

**Response:** Staff met with the Master Builders President of the Lewis County Chapter, Mr. Eric Jensen. We requested that they check and provide an estimate for the additional 2 feet of foundation. The cost estimate for material and labor is estimated at \$2000 for an average 2,000 square foot home.

**Concern:** River Run Ranch moratorium and no build zone.

**Response:** The River Run Ranch falls within both *floodway* and *floodplain*. The lots within the *floodway* were never buildable and were approved for recreational use only. The development of any permanent structure is prohibited. The lots within the floodplain may be developed as long as they meet the minimum NFIP regulations.

**Question:** Will FEMA's rates for insurance coverage go up no matter what we do?

**Response:** Congress approved the Flood Insurance Reform Act of 2012 (Biggert-Watters Act). The program will mean rate increases for policyholders over time. The rates for most properties will accurately reflect the full risk and will increase 25% starting on October 1, 2013.

**Question:** Are we really looking at the big picture of what is causing the flooding?

**Response:** This proposal is about the update of the Flood Damage Prevention chapter of Lewis County Code (LCC) 15.35. FEMA would look at causes of flooding when conducting a new Flood Insurance Study if conditions warranted the research and mapping.

**Question:** Would the freeboard standard apply county wide?

**Response:** The three feet freeboard standard would be applied to unincorporated areas of Lewis County only. The incorporated cities adopt their own regulations.

## LLC Title 15.35 Flood Damage Reduction Ordinance

**Question:** Can the upper Cowlitz River be treated differently than the other areas of the county?

**Response:** All areas of unincorporated Lewis County are held to the same regulatory standard as adopted by LCC 15.35. All incorporated jurisdictions adopt their own regulatory standards.

**Question:** How do the Cities regulations for freeboard compare to this proposed update?

**Response:** The City of Centralia adopted regulations, CMC16.21, requires two feet of freeboard in all Special Flood Hazard Zones. Centralia requires three feet of freeboard in the Special Flood Overlay Zone. The City of Chehalis requires one foot of freeboard above BFE or flood of record, whichever is higher (CMC 17.22.170).

**Public Response:** To date there have been ten written responses in favor of leaving the freeboard standard at one foot. Two written responses have stated that they prefer two feet of freeboard and one response was in favor of the proposed three foot freeboard standard.

**Supplemental Information:** Additional information on mapping and FEMA may be accessed at the following web-links

[www.lewiscountywa.gov](http://www.lewiscountywa.gov)

<http://ims.lewiscountywa.gov/webmaps/fema/>

[fred.chapman@lewiscountywa.gov](mailto:fred.chapman@lewiscountywa.gov)

### **CONCLUSION:**

The Planning Commission held three workshops and two public hearings. Commissioners felt that the discussions about the increase in freeboard was valuable and productive. After considering comments from the public, industry professionals and staff, the Planning Commission voted to recommend all changes to the Flood Damage Prevention regulations with the exception of increasing freeboard to three feet. Commissioners decided that the concept of increasing freeboard to three feet was worthy of discussion again in the future.





## EXHIBIT B

### Lewis County Chapter 15.35 - UPDATE

#### Planning Commission

## Chapter 15.35 FLOOD DAMAGE PREVENTION

#### Sections:

|                  |   |
|------------------|---|
| 15.35.010        | Title.  |
| 15.35.020        | Purpose.  |
| <b>15.35.025</b> | <b>Severability.</b>                                      |
| 15.35.030        | Methods of reducing flood losses.                         |
| 15.35.040        | Definitions.  |
| 15.35.050        | Lands to which this chapter applies.                      |
| 15.35.060        | Basis for establishing the areas of special flood hazard. |
| 15.35.070        | Compliance.   |
| 15.35.080        | Abrogation and greater restrictions.                      |
| 15.35.090        | Interpretation.   |
| 15.35.100        | Criteria for land management and use.                     |
| 15.35.110        | Warning and disclaimer of liability.                      |
| 15.35.120        | Administrator— Designated.                                |
| 15.35.130        | Administrator – Duties.                                   |
| 15.35.140        | Development permits.                                      |
| 15.35.145        | Development permit fee.                                   |
| 15.35.150        | Shoreline management permits.                             |
| 15.35.160        | Appeals.  |
| 15.35.170        | Variances.  |
| 15.35.180        | Penalties and enforcement.                                |
| 15.35.190        | Flood hazard reduction – General standards.               |
| 15.35.200        | Anchoring.  |
| 15.35.210        | Construction materials and methods.                       |
| 15.35.220        | Utilities.  |
| 15.35.230        | Subdivision proposals.                                    |
| 15.35.240        | Review of building permits.                               |
| 15.35.250        | Flood hazard reduction – Specific standards.              |
| 15.35.260        | Flood protection elevation.                               |
| 15.35.270        | Residential construction.                                 |
| 15.35.280        | Nonresidential construction.                              |
| 15.35.290        | Manufactured homes.                                       |
| 15.35.295        | Recreational vehicles.                                    |
| 15.35.300        | Critical facilities.                                      |
| 15.35.310        | Floodways.  |

15.35.320 Shallow flooding areas (AO zones).

**15.35.010 Title.**

This chapter shall be known and shall be cited as the Lewis County “flood damage prevention chapter.” [Ord. 1157, 1998; Ord. 1145 § 1, 1995]

**15.35.020 Purpose.**

It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- (1) To protect human life and health;
- (2) To minimize expenditure of public money and costly flood control projects; to minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (3) To minimize prolonged business interruptions;
- (4) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- (5) To help stabilize the tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future blight areas;
- (6) To insure that potential buyers are notified that property is in an area of special flood hazard; and
- (7) To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. [Ord. 1157, 1998; Ord. 1145 § 2, 1995]

**15.35.025 Severability.**

If any section, subsection, sentence, clause, phrase, portion or part of this code is for any reason held to be invalid or unconstitutional by any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this code.

**15.35.030 Methods of reducing flood losses.**

In order to accomplish its purposes, this chapter includes methods and provisions for:

- (1) Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

- (2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;
- (4) Controlling filling, grading, dredging, and other development which may increase flood damage; and
- (5) Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas. [Ord. 1157, 1998; Ord. 1145 § 3, 1995]

#### **15.35.040 Definitions.**

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application.

“Appeal” means a request for a review of a “land use decision” under this chapter, as provided for in Chapter 2.25 LCC.

“Area of shallow flooding” means a designated AO or AH zone on the flood insurance rate map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. AO is characterized by sheet flow and AH indicates areas of shallow flooding where depths are between one and three feet, but no flood hazard factors are determined.

“Area of special flood hazard” means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letter A or V.

“Base flood” means the flood having a one percent chance of being equaled or exceeded in any given year. Also referred to as the “100-year flood.” Designation on maps always includes the letters A or V.

“Basement” means any area of the building having its floor sub-grade (below ground level) on all sides, partly or completely below grade.

“Beneficial purpose” shall mean a ‘beneficial use’ of fill or materials deposition, involving purposeful development which includes, but is not limited to commercial and residential buildings, and road and utilities construction, in a manner consistent with protection of human health and public safety.

“Best available information” means data from federal, state, or other sources; provided this data has either been generated using technically defensible methods or is based on reasonable

historical analysis and experience. Flood data from existing flood events may be used where flood events are considered more accurate indicators of past base flood conditions. Any variance from adopted flood insurance rate maps must be of a more restrictive nature.

“Critical facility” means a facility for which even a slight chance of flooding would be too great. Critical facilities include but are not limited to schools, hospitals, police, fire and emergency response installations, nursing homes, installations which produce, use, or store hazardous materials or hazardous waste.

“Designated floodway” means the regulatory floodway which has been delineated on the flood insurance rate map (FIRM) or the flood boundary/floodway map (FBFM) of the Lewis County flood insurance study and is included in this chapter.

“Development” means any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, drilling operations or storage of equipment and materials located within the area of special flood hazard. Practices that are normal or necessary for farming and ranching are not considered to be “development.”

“Flood” or “flooding” means a general and temporary condition of partial or complete inundation of normal dry land areas from:

- (a) The overflow of inland or tidal waters; and/or
- (b) The unusual and rapid accumulation of runoff of surface waters from any source.

“Flood insurance rate map” means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

“Flood insurance study” means the official report provided by the Federal Insurance Administration that includes flood profiles, the flood boundary floodway map, and the water surface elevation of the base flood.

“Flood protection elevation” means one foot above the base flood elevation.

“Floodway” means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

“Freeboard” is an additional height requirement above the base flood elevation (BFE) that provides a margin of safety against extraordinary or unknown risks. This protects structures from waves, debris or unpredictable hazards that accompany the base flood.

“Lowest floor” means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or

storage, in an area other than a basement area, is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable no elevation design requirements of this chapter found at LCC 15.35.270.

"Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes the term "manufactured home" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. For insurance purposes the term "manufactured home" does not include park trailers, travel trailers, and other similar vehicles.

"Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

"Market value" as used for the purposes of determining substantial improvement, market value pertains only to the structure in question. It does not pertain to the land, landscaping or detached accessory structures on the property. Any value resulting from the location of the property should be attributed to the value of the land, not the building. Acceptable estimates of market value can be obtained in the following ways:

- (a) An independent appraisal by a professional appraiser. The appraisal must exclude the value of the land and not use the "income capitalization approach" which bases value on the use of the property, not the structure.
- (b) Detailed estimates of the structure's actual cash value— the replacement cost for a building, minus a depreciation percentage based on age and condition. For most situations, the building's actual cash value should approximate its market value. Your community may prefer to use actual cash value as a substitute for market value, especially where there is not sufficient data or enough comparable sales.
- (e) Property values used for tax assessment purposes with an adjustment recommended by the tax appraiser to reflect current market conditions (adjusted assessed value).
- (f) The value of buildings taken from NFIP claims data (usually actual cash value).
- (g) Qualified estimates based on sound professional judgment made by the staff of the local building department or tax assessor's office.

"Necessary" as in the phrase 'not greater than is necessary' shall mean that which is reasonable to effect the intended purpose.

"New construction" means structures for which the "start of construction" commenced on or after the effective date of the ordinance codified in this chapter.

“Person” means an individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, or any agency of the state or local governmental unit however designated.

“Recreational Vehicle” shall mean a vehicle which is:

- (a) Built on a single chassis;
- (b) 400 square feet or less when measured at the largest horizontal projection;
- (c) Designed to be self-propelled or permanently towable; and
- (d) Designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use.

“Repetitive Loss” means a residential property that is covered under an NFIP flood insurance policy and:

- (a) That has at least four NFIP claim payments (including building and contents) over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or
- b) For which at least two separate claims payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building.

For both (a) and (b) above, at least two of the claims must have occurred within any ten-year period, and must be greater than 10 days apart.

“Special flood hazard area” means an area subject to a base or 100-year flood; areas of special flood hazard are shown on a flood hazard boundary map or flood insurance rate map as zone A, AO, AI-30, AE, A99, AH, VO, V1-30, VE, or V.

“Start of construction” includes substantial improvement, and means the date the building permit was issued; provided, the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include excavation for a basement, footings, piers, or foundation or the erection of temporary forms; nor does it include the installation of streets and/or walkways;; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a

building ~~or structure~~, whether or not that alteration affects the external dimensions of the building.

“Structure” means a walled and roofed building including a gas or liquid storage tank that is principally above ground. Manufactured homes are considered structures.

“Substantial Damage” means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged conditions would equal or exceed 50 percent of the market value of the structure before the damage occurred. This term includes structures which have incurred “repetitive loss”.

“Substantial improvement” means any repair, reconstruction, or improvement of a structure the cost of which equals or exceeds 50 percent of the market value of the structure either:

- (a) Before the improvement or repair is started; or
- (b) If the structure has been substantially damaged and is being restored, before the damage occurred. For the purposes of this definition, “substantial improvement” is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure; or
- (c) When the cumulative value of improvements or repairs reaches 50 percent over a 10-year period.

The term does not, however, include either:

- (a) Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which have been identified by a local building, code enforcement or health official and which are the minimum necessary to assure safe living conditions; or
- (b) Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

“Variance” means the grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.

“Water Dependent”. A water-dependent structure for commerce or industry is one which cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operation.

“Wetlands” means lands defined under LCC 17.35.405 LCC, Wetland – Wetlands). [Ord. 1204 Exh. A § 5, 2008; Ord. 1145C, §1, 2000; Ord. 1145B, §1, 1999; Ord. 1145A §1, 1998; Ord. 1157, 1998; Ord. 1145 § 4, 1995]



**15.35.050 Lands to which this chapter applies.**

This chapter shall apply to all areas subject to a base flood and/or designated as an area of special flood hazard within the jurisdiction of Lewis County. [Ord. 1157, 1998; Ord. 1145 § 5(A), 1995]

**15.35.060 Basis for establishing the areas of special flood hazard.**

The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Lewis County"(FIS)dated November 1981, and as amended, with accompanying flood insurance rate maps, as adopted on December 15<sup>th</sup>, 1981 is by reference declared to be a part of this chapter. The 1981 report, as adopted will serve as the official document, unless a new FIS study is adopted by Lewis County. The flood insurance study is on file at the Lewis County Public Service, Department of Community Services, Building Section, Chehalis, Washington and the Lewis County Auditor's Office, Courthouse, Chehalis, Washington. In the event the map is insufficient, best available information should be used to determine the flood hazard zone. [Ord. 1157, 1998; Ord. 1145 § 5(B), 1995]

**15.35.070 Compliance.**

All development shall hereafter proceed in compliance with the terms of this chapter and other applicable regulations. [Ord. 1157, 1998; Ord. 1145 § 5(C), 1995]

**15.35.080 Abrogation and greater restrictions.**

This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions which may be enforced by private action among the affected parties. This chapter establishes the standards for public action. [Ord. 1157, 1998; Ord. 1145 § 5(D), 1995]

**15.35.090 Interpretation.**

In the interpretation and application of this chapter, all provisions shall be:

- (1) Considered as minimum requirements;
- (2) Liberally construed in favor of the governing body; and
- (3) Deemed neither to limit nor repeal any other powers granted under state statutes. [Ord. 1157, 1998; Ord. 1145 § 5(E), 1995]

**15.35.100 Criteria for land management and use.**

The standards and definitions contained in 44 CFR, Parts 59 and 60 for the National Flood Insurance Program, Chapter 86.16 RCW and Chapter 173-158 WAC, and Chapter 17.35 LCC,

Critical Areas, are adopted as the minimum state standards by reference. [Ord. 1157, 1998; Ord. 1145 § 5(F), 1995]

**15.35.110 Warning and disclaimer of liability.**

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. Lewis County and any of its officers or employees are not responsible for the accuracy of materials submitted for review and does not guarantee that flood damage will not result from reliance on this chapter or any administrative decision lawfully made thereunder. [Ord. 1157, 1998; Ord. 1145 § 5(G), 1995]

**15.35.120 Administrator – Designated.**

The building official for the county or his designee shall be designated as administrator and shall be responsible for interpreting, developing and applying the provisions and requirements of this chapter. [Ord. 1157, 1998; Ord. 1145 § 6(A)(1), 1995]

**15.35.130 Administrator – Duties.**

Duties of the building official shall include, but are not limited to:

**(1) Permit Review.**

- (a) Review all development permits to determine that the permit requirements of this chapter have been satisfied.
- (b) Review all development permits to determine that all necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required.
- (c) Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of LCC 15.35.310(1) are met.
- (d) Provide a copy of the permit application and site plan to the planning department for review and comment.

(2) Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with LCC 15.35.060, the building official shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from federal, state, or other source, in order to administer LCC 15.35.270, 15.35.280 and 15.35.310.

**(3) Information to be Obtained and Maintained.**

- (a) Where base flood elevation is provided through the flood insurance study or required as in subsection (2) of this section, the developer shall provide to the building official the actual elevation to which the structure was flood-proofed, certified by a licensed land surveyor, (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement. The building official shall record this elevation.
- (b) For all new or substantially improved floodproofed structures:
  - (i) The developer shall provide to the building official the actual elevation, certified by a licensed land surveyor. The building official shall record this elevation.
  - (ii) The building official shall maintain the floodproofing certifications required in LCC 15.35.140(3).
- (c) The building official shall maintain for public inspection all records pertaining to the provisions of this chapter.
- (4) Alteration of Watercourses.
  - (a) Notify adjacent communities and the Department of Ecology prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
  - (b) Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.
- (5) Interpretation of FIRM Boundaries. Make interpretations, where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in LCC 15.35.160. [Ord. 1145C § 2, 2000; Ord. 1157, 1998; Ord. 1145 § 6(A)(2), 1995]

#### **15.35.140 Development permits.**

A development permit entitled flood hazard zone permit shall be obtained before construction or development begins within any area of special flood hazard established in LCC 15.35.060. The permit shall be for all structures including manufactured homes, as set forth in LCC 15.35.040 and for all other development including fill and other activities, also as set forth in LCC 15.35.040. Application for a development permit shall be made on forms furnished by the building official and shall include (but not be limited to) site plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically the following information is required:

- (1) Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;
- (2) Elevation in relation to mean sea level to which any structure has been floodproofed;
- (3) Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in LCC 15.35.270;
- (4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development; and
- (5) The applicant shall indicate the exact location of the proposed structures or development upon a copy of the flood hazard map and shall certify in writing that the location shown is correct. Applicant may also make such certification upon an accurate site plan showing location of readily identifiable physical features.
- (6) Every permit issued by the administrator in accordance with this chapter shall expire by limitation and become null and void if the work authorized by such permit is not commenced within 180 days from the effective date of such permit, or if the work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days. Before such work can be recommenced, a new permit shall be first obtained using the most current maps and flood insurance study. The fee shall be one half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans or specifications, and provided further that such suspension or abandonment has not exceeded one year. In order to renew action on a permit after an expiration exceeding one year, the permittee shall pay a new, full permit fee and submit to full permit review. Any permittee holding an unexpired permit may apply for an extension of time within which work may be commenced under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. For good cause shown, a permittee with an active permit may be granted up to two successive six-month extensions for time of action required under this section. For each extension, the permit must be reviewed for compliance with the most current maps and flood insurance study. In no event, however, shall the work authorized by such permit extend beyond two (2) years of the effective date of the permit under this section. For purposes of this section, the effective date of the permit shall be the date of the last action required on the permit and all other government permits and approvals that authorize the development to proceed, including all administrative and legal actions on any such permit or approval. It is the responsibility of the applicant to inform the Administrator of the pendency of other permit applications filed with agencies other than the County and of any related administrative and legal actions on any permit or approval. If no notice of the pendency of other permits or approvals is given to the Administrator by the applicant prior to the expiration date established by the permit or the provisions of this section, the expiration shall be based on the original permit date. [Ord. 1145A §2, 1998; Ord. 1157, 1998; Ord. 1145 § 6(A)(3), 1995]

**15.35.145 Development Fees.**

A fee for a development permit hereunder shall be as set forth in LCC 18.05.055. [Ord. 1145B §2, 1999]

**15.35.150 Shoreline management permits.**

A shoreline management substantial development permit shall accompany a Joint Aquatics Application Permit and a Flood Plain Development permit. A shoreline management substantial development permit issued pursuant to Chapter 90.58 RCW (Shoreline Management Act of 1971) and the Lewis County shoreline management master program and Chapter 17.25 LCC may serve as the flood hazard zone permit for those developments and structures that are within both a flood hazard zone and an area under jurisdiction of the Shoreline Management Act. [Ord. 1145C § 3, 2000; Ord. 1157, 1998; Ord. 1145 § 6(A)(4), 1995]

**15.35.160 Appeals.**

Hearing Examiner. Any decision of the administrator in the interpretation and application of this chapter may be appealed pursuant to Chapter 2.25 LCC. [Ord. 1157, 1998; Ord. 1145 § 6(B), 1995]

**15.35.170 Variances.**

- (1) Administration. The administrator shall hear and decide requests for variances.
- (2) Application. Application for a variance request shall be submitted in conjunction with any permit request, and any notice required for such permitting shall include notice of the request for variance.
- (3) Standards of Review. In deciding upon a request for variance, the administrator shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter, and the following:
  - (a) The danger that materials may be swept onto other lands to the injury of others;
  - (b) The danger to life and property due to flooding or erosion damage;
  - (c) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
  - (d) The importance of the services provided by the proposed facility to the community;
  - (e) The necessity to the facility of a waterfront location, where applicable;
  - (f) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;

- (g) The compatibility of the proposed use with existing and anticipated development;
  - (h) The relationship of the proposed use to the comprehensive plan, if any, and floodplain management program for that area;
  - (i) The safety of access to the property in times of flood for ordinary and emergency vehicles;
  - (j) The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site;
  - (k) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges;
  - (l) A showing of good and sufficient cause;
  - (m) A determination that failure to grant the variance would result in exceptional hardship to the applicant;
  - (n) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public as identified in subsections (a) through (k) above, or conflict with existing local laws or ordinances.
- (4) General Requirements. The only condition under which a variance from the elevation standard may be used is for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level; provided subsections (3)(a) through (n) of this section have been fully considered. As the lot size increases the technical justification required for issuing the variance increases.
- (5) General Restrictions. The issuance of variances shall be further limited by the following general issuance restrictions:
- (a) Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places without regard to the procedures set forth in this section, provided that the issuance of the variances will not preclude the structures listing as a historical structure.
  - (b) Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.
  - (c) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

- (d) Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.
- (e) Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of floodproofing than watertight or dry-floodproofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria except subsection (4) of this section, and otherwise complies with LCC 15.35.200 and 15.35.210.
- (6) Notice. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will result in an increased premium rate commensurate with the increased risk resulting from the reduced lowest floor elevation. [Ord. 1157, 1998; Ord. 1145 § 6(C), 1995]

#### **15.35.180 Penalties and enforcement.**

- (1) It shall be unlawful for any person(s) to violate any provision of this chapter.
- (2) A notice of violation and order for penalty may be issued by the administrator or designee pursuant to LCC 1.20.040; except, that the cumulative penalty may total up to \$1,000 per day for each violation assessed against the person(s) to whom the notice and order to correct the violation is directed.
- (3) Any penalty jointly imposed by the administrator and by Lewis County pursuant to WAC 173-158-090 may be subject to appeal directly to the Pollution Control Hearings Board of the state of Washington, by and through the administrative procedures governing the board. [Ord. 1157, 1998; Ord. 1145 § 6(D), 1995]

#### **15.35.190 Flood hazard reduction – General standards.**

In all areas of special flood hazards the standards of LCC 15.35.200 through 15.35.240 are required. In addition, in all areas of special flood hazards:

Any fill or materials to be deposited within special flood hazard areas must have a beneficial purpose and the amount thereof not greater than is necessary to achieve that purpose, as demonstrated by a complete application submitted by the legal owner(s) showing the uses to which the filled land will be put and the final dimensions of the proposed fill or other materials. Any placement of fill or encroachments shall minimize the net increase in flood levels to less than or equal to the federal standard of one-foot increase in flood levels from the cumulative effect of the proposed development when combined with all other existing and anticipated development during the occurrence of the base flood discharge. The county may adopt a

program to limit the cumulative impacts of fill to meet the FEMA standard of an overall increase not to exceed one foot in any watershed or sub-basin or an applicant may provide a study that demonstrates compliance with the one-foot cumulative rise standard; provided, that up to 500 cubic yards of permitted fill may be placed outside of the mapped floodway on an existing parcel under contiguous ownership without complying with the above standard. This exemption does not apply when there is no mapped floodway in the special flood hazard area. However, the requirement of LCC 15.35.310 shall continue to apply for any encroachment into a FEMA identified floodway. All or substantial alteration of existing facilities, including roadways, except approved flood control structures, shall incorporate provisions to allow the free movement of floodwaters and may require retrofitting to remove barriers to flood movement.

[Ord. 1204 Exh. A § 5, 2008; Ord. 1145A § 3, 1998; Ord. 1157, 1998; Ord. 1145 § 7(A), 1995]**15.35.200 Anchoring.**

(1) All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

(2) All manufactured homes must likewise be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (Reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques). [Ord. 1157, 1998; Ord. 1145 § 7(A)(1), 1995]

#### **15.35.210 Construction materials and methods.**

(1) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

(2) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

(3) Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated one foot above base flood so as to prevent water from entering or accumulating within the components during conditions of flooding. [Ord. 1157, 1998; Ord. 1145 § 7(A)(2), 1995]

#### **15.35.220 Utilities.**

(1) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;

(2) New and replacement sanitary sewer systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters; and



(3) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding. [Ord. 1157, 1998; Ord. 1145 § 7(A)(3), 1995]

**15.35.230 Subdivision proposals.**

(1) All subdivision proposals shall be consistent with the need to minimize flood damage. Subdivisions within special flood hazard areas shall be clustered on the highest portion of the property to avoid flood hazards. Land that is located partially within a special flood hazard area may be divided; provided, that each resulting lot has sufficient buildable area and access to the lot is provided outside of the special flood hazard area. All plats and short plats will clearly show the boundary of the flood hazard area including any floodway together with a restriction on development within the hazard area;

(2) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water system source treatment and storage located outside the special flood hazard area, except where there is no feasible alternative. If allowed, such facilities shall be constructed to minimize flood damage;

(3) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and

(4) Where base flood elevation data has not been provided, or is not available from another authoritative source, the data shall be generated by the applicant as a condition of permitting. [Ord. 1204 Exh. A § 5, 2008; Ord. 1157, 1998; Ord. 1145 § 7(A)(4), 1995]

**15.35.240 Review of building permits.**

Where elevation data is not available either through the flood insurance study or from another authoritative source (LCC 15.35.130 (2)), applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates. [Ord. 1157, 1998; Ord. 1145 § 7(A)(5), 1995]

**15.35.250 Flood hazard reduction – Specific standards.**

In all areas of special flood hazards where base flood elevation data has been provided as set forth in LCC 15.35.060 or 15.35.130(2), the provisions of LCC 15.35.260 through 15.35.300 are required. [Ord. 1157, 1998; Ord. 1145 § 7(B), 1995]

**15.35.260 Flood protection elevation.**

In order to account for the impacts of future development on flood depths, and in order to ensure the least expensive insurance rates for floodplain occupants, all development within special flood hazard areas which requires elevation or floodproofing shall be elevated or

floodproofed to or above the flood protection elevation (base flood elevation plus one foot of freeboard). [Ord. 1157, 1998; Ord. 1145 § 7(B)(1), 1995]

**15.35.270 Residential construction.**

- (1) New construction on existing parcels, additions, and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to the flood protection elevation.
- (2) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:
  - (a) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
  - (b) The bottom of all openings shall be no higher than one foot above grade.
  - (c) Openings may be equipped with screens, louvers, or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters. [Ord. 1204 Exh. A § 5, 2008; Ord. 1157, 1998; Ord. 1145 § 7(B)(2), 1995]

**15.35.280 Nonresidential construction.**

New construction, additions, and substantial improvement of any commercial, industrial, or other nonresidential structure requiring a building permit, shall either have the lowest floor, including basement, elevated to the flood protection elevation, or, together with attendant utility and sanitary facilities, shall:

- (1) Be floodproofed so that below the flood protection elevation the structure is watertight with walls substantially impermeable to the passage of water;
- (2) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
- (3) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in LCC 15.35.130(3)(b);
- (4) Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in LCC 15.35.260;

(5) Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g., a building constructed to the base flood level will be rated as one foot below that level). [Ord. 1157, 1998; Ord. 1145 § 7(B)(3), 1995]

#### **15.35.290 Manufactured homes.**

All manufactured homes to be placed or substantially improved within zones A1-30, AH, and AE shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at the flood protection elevation and be securely anchored to an adequately anchored foundation system in accordance with the provisions of LCC 15.35.200(2). [Ord. 1157, 1998; Ord. 1145 § 7(B)(4), 1995]

#### **15.35.295 Recreational vehicles.**

- (1) All recreational vehicles to be placed within zones A1-30, AH and AE shall:
- (a) Be on the site for fewer than 180 consecutive days; or
  - (b) Be fully licensed and ready for highway use, on its wheels or jacking system, be attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or
  - (c) Meet the requirements of LCC 15.35.290, and the elevation and anchoring requirements for manufactured homes. [Ord. 1145B §3, 1999]

#### **15.35.300 Critical facilities.**

Critical facilities should be afforded additional flood protection due to their nature. Construction of new critical facilities shall be located outside the limits of the 100-year floodplain as identified on the community's FIRM, or as identified by Lewis County as being an area of high flood risk whether or not the location is identified on the FIRM, unless no alternative location is feasible. Substantial modification of existing critical facilities shall include an analysis of whether relocation is feasible. Construction of new critical facilities permitted within the 100-year frequency floodplain shall have the lowest floor elevated to three or more feet above the level of the 100-year frequency flood. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the 100-year frequency flood shall be provided to all critical facilities to the extent possible. [Ord. 1204 Exh. A § 5, 2008; Ord. 1157, 1998; Ord. 1145 § 7(B)(5), 1995]

#### **15.35.310 Floodways.**

Areas designated as floodways are located within areas of special flood hazard established in LCC 15.35.060. Because the floodway is an extremely hazardous area due to the velocity of

floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

(1) Landfill, potable water supply wells, substantial improvements, and new construction are prohibited. Other development may be allowed only if certification by a registered professional, Washington State engineer or architect is provided (through hydrologic and hydraulic analyses performed in accordance with standard engineering practice) demonstrating that the encroachments will not result in any increase in flood levels during the occurrence of the base flood discharge. Compensatory storage for floodwaters may be required.

(2) Special flood hazard areas with designated floodways. In addition to those NFIP requirements for designated floodways, communities with designated floodways shall restrict land uses within such areas to include the prohibition of construction or reconstruction of residential and nonresidential structures, except for:

- (a) Repairs, reconstruction, or improvements to a structure which do not increase the ground floor area; and
- (b) Repairs, reconstruction, or improvements which are not substantial improvements as defined in LCC 15.35.040(25).

(3) Special flood hazard areas without designated floodways. In areas with base flood elevations (for which a regulatory floodway has not been designated) no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1 – 30 and AE on the community's FIRM that will increase the water surface elevation of the base flood during the occurrence of the base flood discharge unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community. Building and development without a designated floodway shall comply with the requirements of 44 CFR 60.3(b)(3) and (4), and (c)(10) of the National Flood Insurance Program regulations.

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(b)(3) Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or five acres, whichever is the lesser, include within such proposals base flood elevation data; and

(b)(4) Obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, including data developed pursuant to subsection ((b)(3) of this section, as criteria for requiring that new construction, substantial improvements, or other development in Zone A on the community's FHBM or FIRM meet the standards in paragraphs (c)(2), (c)(3), (c)(5), (c)(6), (c)(12), (c)(14), (d)(2) and (d)(3) of this section;

(c)(10) Require until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood.

[Ord. 1204 Exh. A § 5, 2008; Ord. 1145A §4, 1998; Ord. 1157, 1998; Ord. 1145 § 7(C), 1995]

#### **15.35.320 Shallow flooding areas (AO zones).**

Shallow flooding areas appear on FIRMs as AO zones with depth designations. The base flood depths in these zones range from one to three feet where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. In these areas, the following provisions apply:

- (1) New construction and substantial improvements of residential structures within AO zones shall not result in any increase in flood levels during the occurrence of the base flood discharge. Compensatory storage for floodwaters may be required. New construction and substantial improvements of residential structures must be constructed with the lowest floor (including basement) elevated above the highest adjacent grade of the structure, one foot or more above the depth number specified on the FIRM (at least two feet if no depth number is specified).
- (2) New construction and substantial improvements of nonresidential structures within AO zones shall either:
  - (a) Have the lowest floor (including basement) elevated above the highest adjacent grade of the structure, one foot or more above the depth number specified on the FIRM (at least two feet if no depth number is specified); or
  - (b) Together with attendant utility and sanitary facilities, be completely floodproofed to that level specified in subsection (2)(a) of this section so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect as in LCC 15.35.280(3).
- (3) Require adequate drainage paths around structures on slopes to slide floodwaters around and away from proposed structures.
- (4) All recreational vehicles to be placed within AO zones shall:
  - (a) Be on the site for fewer than 180 consecutive days; or

- (b) Be fully licensed and ready for highway use, on their wheels or jacking system, be attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or
- (c) Meet the requirements of subsections (1), (2) and (3) of this section, and the anchoring requirements for manufactured homes. [Ord. 1204 Exh. A § 5, 2008; Ord. 1145C §§4 & 5, 2000; Ord. 1157, 1998; Ord. 1145 § 7(D), 1995]